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## India in 1913.

Those who look at the map of the world see a triangle thrust into the Indian Ocean, covered red with yellow patches. That is the Indian Empire, a million and three-quarter millions in extent with a population of 315 millions. In area it is as large as Europe without Asia; its peoples comprise one-fifth of the human race.

The error into which those unacquainted with India commonly fall is in regarding the country and its people as constituting a homogeneous nation in the European sense of the word. There is no sort of unity—physical, racial, social or religious. The divisions, which still keep the peoples of India apart, are far more marked than can be found in Europe from London to the Urals. "There are no countries in civilised Europe in which the people differ so much as the man of Madras from the Sikh, and the languages of northern India are as unintelligible in Lahore as they would be in London."

India embraces almost every variety of soil. The sodden fields of Bengal a dense population raises great crops of rice and jute, and in the palm-fringed lagoons of the south a coconut grove will maintain a family of lotus eaters. In the central table-land a grudging and erratic rainfall have bred a hardy and loyal peasantry; here, it has been said with truth, the ryot expects a famine one year in three—and gets it. In the far north the wild men, unable to subsist in their own parched lands, raid the plains as hillmen have from time immemorial. It possesses every variety of climate, from Cherra Punt in Assam where the rainfall is 800 inches a year to the deserts of Rajasthan and Baluchistan, where it is almost unknown; in three days the traveller can pass from the steamy heat of the south to the everlinging snows of the Himalayas.

This vast and varied land is inhabited by an infinitely varied people. At the bottom are the originals, relicts of the jungle tribes who succumbed to the Aryan invasion—forest folk still trying their primitive bows and spears, and chipping sticks and stones. Superposed on these are the human structures raised by each successive invasion from the north; the Aryans with their wonderful caste system; the Mahomedans, a militant religious democracy; whilst the Persians from Persia fleeing from exile, and the men of Mongolian stock by peaceful penetration have added to the plexus of races. These peoples speak ninety-seven different languages and profess nine distinct religions. The arrival of the English by sea and the gradual extension of their power have produced a sense of unity in India which never previously existed. For the first time in its troubled history India now owns allegiance to a single ruler, His Majesty the King, Emperor of India, whose writ runs unchallenged from Cape Comorin to Peshawar and from Karachi to the confines of Siam. "Railways" have battered down the internal barriers. There are men living who used to travel from Calcutta to Agra in palanquins, a journey of three weeks now easily accomplished in twenty-four hours. The country is intersected by a network of trunk and branch lines. Improved steamship communications

have brought London within thirteen days of Bombay and Hongkong a fortnight from India. The English language has broken down the Babel of tongues which separated mind from mind; English education has evolved a certain common outlook amongst the increasing products of the Universities.

These unifying forces have produced an enormous increase in material prosperity. The revenue amounts to £82 millions, the foreign trade to £271 millions, there is practically no unproductive debt. Measured by European standards the majority of the people are extremely poor, and in the large tracts where the rainfall is precarious, the margin between sufficiency and famine is still fine. But standards which take no account of the ameliorations of a mild climate and of the cheapness of food where a penny a day is sufficient to sustain life are fallacious. The dependence of the population on agriculture is being reduced by the growth of industry; the liability to famine is being lessened by the extension of protective irrigation; whilst solid evidences of the growth of prosperity are found in the rise of an important middle class, the increase in banking deposits and the absorption of the precious metals. India is the greatest purchaser of gold in the world. The balance of trade in favour of India in the last twelve years amounted to £467 millions.

These great changes have brought their own problems in their train. A generation ago the dominant characteristic of India was apathy; to-day it is effervescence. The successful war waged by Japan, an Asiatic State, against Russia, the military bogey of Europe, profoundly affected Indian thought. This revolution was followed by the rise of democracy in England at the general election of 1906, and later by the peril of Islamic States in Tripoli, the Balkans, and Northern Persia, deeply moving the sixty millions of Moslems in India, who jealously watched the curtailment of the temporal power of Islam. These world movements, acting on a dawning sense of nationality in India, have effected an intellectual revolution. They produced certain malignant forces, like the outbreak of anarchism; certain healthy forces, like the quickened desire for progress apparent on every side. The policy of the Government of India in the face of these changes is twofold: it is to repress anarchy and sedition with the utmost rigour of the law, and to meet the genuinely liberal movement by the gradual adoption of representative institutions. So far this policy has been crowned with complete success. Although the anarchist has not disappeared, and never will disappear, he has become far rarer and enjoys no public support: the liberals realise that under the Reform scheme of 1910 they have opportunities equaling, if not surpassing, their present state of political education: the visit of Their Imperial Majesty to India, with their message of hope, set the seal on the attachment of India to the Crown. While India is still quick with new ideas and ambitions, and anarchy will continue to be sporadic, she is confident of the future of the country within the Empire and under the Crown.



## The History of India in Outline.

No history of India can be proportionate, and the briefest summary must suffer from the same defect. Even a wholesale acceptance as history of mythology, tradition, and folklore will not make good, though it makes picturesque, the many gaps that exist in the early history of India: and, though the labours of modern geographers and archaeologists have been amazingly fruitful, it cannot be expected that these gaps will ever be filled to any appreciable extent. Approximate accuracy in chronology and an outline of dynastic facts are all that the student can look for up to the time of Alexander, though the briefest excursion into the by-ways of history will reveal to him many alluring and mysterious fields for speculation. There are, for example, to this day castes that believe they sprang originally from the loins of a being who landed "from an impossible boat on the shores of a highly improbable sea"; and the great epic poems contain plentiful statements equally difficult of reconciliation with modern notions of history as a science. But from the Jataka stories and the Puranas, much valuable information is to be obtained, and, for the benefit of those unable to go to these and other original sources, it has been distilled by a number of writers.

The orthodox Hindu begins the political history of India more than 3000 years before Christ, with the war waged on the banks of the Jumna between the sons of Kuru and the sons of Pandu; but the modern critic prefers to omit several of those remote centuries and to take 600 B. C., or thereabouts, as his starting point. At that time much of the country was covered with forest, but the Aryan races, who had entered India from the north, had established in parts a form of civilization far superior to that of the aboriginal savages, and to this day there survive cities, like Benares, founded by those invaders. In like manner the Dravidian invaders from an unknown land, who overran the Deccan and the Southern part of the Peninsula, crushed the aborigines, and, at a much later period, were themselves subdued by the Aryans. Of these two civilizing forces, the Aryan is the better known, and of the Aryan kingdoms the first of which there is authentic record is that of Magadha, or Bihar, on the Ganges. It was in, or near, this powerful kingdom that Jainism and Buddhism had their origin, and the fifth King of Magadha, Bimbisara by name, was the friend and patron of Gautama Buddha. The King mentioned was a contemporary of Darius, autocrat of Persia (521 to 485 B. C.) who annexed the Indus valley and formed from his conquest an Indian satrapy which paid as tribute the equivalent of about one million sterling. Detailed history, however, does not become possible until the invasion of Alexander in 326 B. C.

### Alexander the Great.

That great soldier had crossed the Hindu Kush in the previous year and had captured Aornos, on the Upper Indus. In the spring of 326 he crossed the river at Ohind, received the submission of the King of Taxila, and marched against Porus who ruled the fertile country between the rivers Hydaspes (Jhelum) and

Akesines (Chenab). The Macedonian carried all before him, defeating Porus at the battle of the Hydaspes, and crossing the Chenab and Ravi. But at the River Hyphasis (Bias) his weary troops mutinied, and Alexander was forced to turn back and retire to the Jhelum where a fleet to sail down the rivers to the sea was nearly ready. The wonderful story of Alexander's march through Mekran and Persia to Babylon, and of the voyage of Nearchus up the Persian Gulf is the climax to the narrative of the invasion but is not part of the history of India. Alexander had stayed nineteen months in India and left behind him officers to carry on the Government of the kingdoms he had conquered; but his death at Babylon, in 323, destroyed the fruits of what has to be regarded as nothing but a brilliant raid, and within two years his successors were obliged to leave the Indian provinces, heavily scarred by war but not hellenized.

The leader of the revolt against Alexander's generals was a young Hindu, Chandragupta, who was an illegitimate member of the Royal Family of Magadha. He dethroned the ruler of that kingdom, and became so powerful that he is said to have been able to place 600,000 troops in the field against Seleucus, to whom Babylon had passed on the death of Alexander. This was too formidable an opposition to be faced, and a treaty of peace was concluded between the Syrian and Indian monarchs which left the latter the first Paramount Sovereign of India (321 B. C.) with his capital at Pataliputra, the modern Patna and Bankipore. Of Chandragupta's court and administration a very full account is preserved in the fragments that remain of the history compiled by Megasthenes, the ambassador sent to India by Seleucus. His memorable reign ended in 297 B. C. when he was succeeded by his son Bindusara, who in his turn was succeeded by Asoka (269—231 B. C.) who recorded the events of his reign in numerous inscriptions. This king, in an unusually bloody war, added to his dominions the kingdom of Kalinga (the Northern Circars) and then becoming a convert to Buddhism, resolved for the future to abstain from conquest by force of arms. The consequences of the conversion of Asoka were amazing. He was not intolerant of other religions, and did not endeavour to force his creed on his "children". But he initiated measures for the propagation of his doctrine with the result that "Buddhism, which had hitherto been a merely local sect in the valley of the Ganges, was transformed into one of the greatest religions of the world—the greatest, probably, if measured by the number of adherents. This is Asoka's claim to be remembered; this it is which makes his reign an epoch, not only in the history of India, but in that of the world." The wording of his edicts reveal him as a great king as well as a great missionary, and it is to be hoped that the excavations now being carried on in the ruins of his palace may throw yet more light on his character and times. On his death the Maurya kingdom fell to pieces. Even during his reign there had been signs of new forces at work on the borderland of India, where the inde-

pendent kingdoms of Bactria and Parthia had been formed, and subsequent to it there were frequent Greek raids into India. The Greeks in Bactria, however, could not withstand the overwhelming force of the westward migration of the Yueh-chi horde, which, in the first century A. D., also ousted the Indo-Parthian kings from Afghanistan and North-Western India.

The first of these Yueh-chi kings to annex a part of India was Kadphises II (A. D. 85—125), who had been defeated in a war with China, but crossed the Indus and consolidated his power eastward as far as Benares. His son Kanishka (whose date is much disputed) left a name which to Buddhists stands second only to that of Asoka. He greatly extended the boundaries of his empire in the North, and made Peshawar his capital. Under him the power of the Kushan clan of the Yueh-chi reached its zenith and did not begin to decay until the end of the second century, concurrently with the rise in middle India of the Andhra dynasty which constructed the Amaravati stupa, "one of the most elaborate and precious monuments of plety ever raised by man."

#### The Gupta Dynasty.

Early in the fourth century there arose, at Pataliputra, the Gupta dynasty which proved of great importance. Its founder was a local chief, his son Samudragupta, who ruled for some fifty years from A.D. 326, was a king of the greatest distinction. His aim of subduing all India was not indeed fulfilled but he was able to exact tribute from the kingdoms of the South and even from Ceylon, and, in addition to being a warrior, he was a patron of the arts and of Sanskrit literature. The rule of his son, Chandragupta, was equally distinguished and is commemorated in an inscription on the famous iron pillar near Delhi, as well as in the writings of the Chinese pilgrim Fa-hien who pays a great tribute to the equitable administration of the country. It was not until the middle of the fifth century that the fortunes of the Gupta dynasty began to wane—in face of the onset of the White Huns from Central Asia—and by 480 the dynasty had disappeared. The following century all over India was one of great confusion, apparently marked only by the rise and fall of petty kingdoms, until a monarch arose, in A.D. 606, capable of consolidating an Empire. This was the Emperor Harsha who, from Thanasar near Ambala, conquered Northern India and extended his territory South to the Nerbudda. Imitating Asoka in many ways, this Emperor yet "felt no embarrassment in paying adoration in turn to Shiva, the Sun, and Buddha at a great public ceremonial." Of his times a graphic picture has been handed down in the work of a Chinese "Master of the Law," Hsuen Tsiang by name. Harsha was the last native paramount sovereign of Northern India; on his death in 648 his throne was usurped by a Minister, whose treacherous conduct towards an embassy from China was quickly avenged, and the kingdom so laboriously established lapsed into a state of internecine strife which lasted for a century and a half.

#### The Andhras and Rajputs.

In the meantime in Southern India the Andhras had attained to great prosperity and

carried on a considerable trade with Greece, Egypt and Rome, as well as with the East. Their domination ended in the fifth century A.D. and a number of new dynasties, of which the Pallavas were the most important, began to appear. The Pallavas made way in turn for the Chalukyas, who for two centuries remained the most important Deccan dynasty; one branch uniting with the Cholas. But the fortunes of the Southern dynasties are so involved, and in many cases so little known; that to recount them briefly is impossible. Few names of note stand out from the record; except those of Vikramaditya (11th century) and a few of the later Hindu rulers who made a stand against the growing power of Islam, of the rise of which an account is given below. In fact the history of mediæval India is singularly devoid of unity. Northern India was in a state of chaos from about 650 to 950 A.D. not unlike that which prevailed in Europe of that time, and materials for the history of these centuries are very scanty. In the absence of any powerful rulers the jungle began to gain back what had been wrested from it: ancient capitals fell into ruins from which in some cases they have not even yet been disturbed, and the aborigines and various foreign tribes began to assert themselves so successfully that the Aryan element was chiefly confined to the Doab and the Eastern Punjab. It is not therefore so much for the political as for the religious and social history of this anarchical period that one must look. And the greatest event—if a slow process may be called an event—of the middle ages was the transition from tribe to caste; the final disappearance of the old four-fold division of Brahmans, Kshatriyas, Vaisyas, and Sudras, and the formation of the new division of pure and impure largely resting upon a classification of occupations. But this social change was only a part of the development of the Hindu religion into a form which would include in its embrace the many barbarians and foreigners in the country who were outside it. The great political event of the period was the rise of the Rajputs as warriors in the place of the Kshatriyas. Their origin is obscure but they appeared in the 8th century and spread, from their two original homes in Rajputana and Oudh; into the Punjab, Kashmir, and the Central Himalayas, assimilating a number of fighting clans and binding them together with a common code. At this time Kashmir was a small kingdom which exercised an influence on India wholly disproportionate to its size. The only other kingdom of importance was that of Kanauj—in the Doab and Southern Oudh—which still retained some of the power to which it had reached in the days of Harsha, and of which the renown extended to China and Arabia.

With the end of the period of anarchy, the political history of India centres round the Rajputs. One clan founded the kingdom of Gujarat; another held Malwa, another (the Chauhans) founded a kingdom of which Ajmer was the capital, and so on. Kanauj fell into the hands of the Rathors (c. 1040 A.D.) and the dynasty then founded by that branch of the Gaharwars of Benares became one of the most famous in India. Later in the same century the Chauhans were united; and by

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1163 one of them could boast that he had conquered all the country from the Vindhya to the Himalayas, including Delhi already a fortress a hundred years old. The son of this conqueror was Prithwi Raj, the champion of the Hindus against the Mahomedans. With his death in battle (1192) ends the golden age of the new civilization that had been evolved out of chaos; and of the greatness of that age there is a splendid memorial in the temples and forts of the Rajput states and in the two great philosophical systems of Sankaracharya (ninth century) and Ramanuja (twelfth century). The triumph of Hinduism had been achieved, it must be added, at the expense of Buddhism, which survived only in Magadha at the time of the Mahomedan conquest and speedily disappeared there before the new faith.

### **Mahomedan India.**

The wave of Mahomedan invaders that eventually swept over the country first touched India, in Sind, less than a hundred years after the death of the Prophet in 632. But the first real contact was in the tenth century when a Turkish slave of a Persian ruler founded a kingdom at Ghazni, between Kabul and Kandahar. A descendant of his, Mahmud (967-1030) made repeated raids into the heart of India, capturing places so far apart as Multan, Kanauj, Gwalior, and Sonmath in Kathiawar, but permanently occupying only a part of the Punjab. Enduring Mahomedan rule was not established until the end of the twelfth century, by which time, from the little territory of Ghor, there had arisen one Mahomed Ghorî capable of carving out a kingdom stretching from Peshawar to the Bay of Bengal. Prithwi Raj, the Chauhan ruler of Delhi and Ajmer, made a brave stand against, and once defeated, one of the armies of this ruler, but was himself defeated in the following year. Mahomed Ghorî was murdered at Lahore (1206) and his vast kingdom, which had been governed by satraps, was split up into what were practically independent sovereignties. Of these satraps, Qutb-ud-din, the slave ruler of Delhi and Lahore, was the most famous, and is remembered by the great mosque he built near the modern Delhi. Between his rule and that of the Mughals, which began in 1526, only a few of the many Kings who governed and fought and built beautiful buildings, stand out with distinction. One of these was Ala-ud-din (1296-1316), whose many expeditions to the south much weakened the Hindu Kings, and who proved himself to be a capable administrator. Another was Firoz Shah, of the house of Tughlaq, whose administration was in many respects admirable, but which ended, on his abdication, in confusion. In the reign of his successor, Mahmud (1398-1413), the kingdom of Delhi went to pieces and India was for seven months at the mercy of the Turkish conqueror Taimur. It was the end of the fifteenth century before the kingdom, under Sikandar Lodi, began to recover. His son, Ibrahim, still further extended the kingdom that had been recreated, but was defeated by Babar, King of Kabul, at Panipat, near Delhi, in 1526, and there was then established in India the Mughal dynasty.

The Mahomedan dynasties that had ruled in capitals other than Delhi up to this date

were of comparative unimportance, though some great men appeared among them. In Gujarat, for example, Ahmad Shah, the founder of Ahmedabad, showed himself a good ruler and builder as well as a good soldier, though his grandson, Mahmud Shah Begara, was a greater ruler—acquiring fame at sea as well as on land. In the South various kings of the Bahma'ni dynasty made names for themselves, especially in the long wars they waged on the new Hindu kingdom that had arisen which had its capital at Vijayanagar. Of importance also was Adil Khan, a Turk, who founded (1490) the Bijapur dynasty of Adilshahis. It was one of his successors who crushed the Vijayanagar dynasty, and built the great mosque for which Bijapur is famous.

### **The Mughal Empire.**

As one draws near to modern times it becomes impossible to present anything like a coherent and consecutive account of the growth of India as a whole. Detached threads in the story have to be picked up one by one and followed to their ending, and although the sixteenth century saw the first European settlements in India, it will be convenient here to continue the narrative of Mahomedan India almost to the end of the Mughal Empire. How Babar gained Delhi has already been told. His son, Humayun, greatly extended his kingdom, but was eventually defeated (1540) and driven into exile by Sher Khan, an Afghan of great capabilities, whose short reign ended in 1545. The Sur dynasty thus founded by Sher Khan lasted another ten years when Humayun having snatched Kabul from one of his brothers, was strong enough to win back part of his old kingdom. When Humayun died (1556) his eldest son, Akbar, was only 13 years old and was confronted by many rivals. Nor was Akbar well served, but his career of conquest was almost uninterrupted and by 1594 the whole of India North of the Nerbudda had bowed to his authority, and he subsequently entered the Deccan and captured Ahmednagar. This great ruler, who was as remarkable for his religious tolerance as for his military prowess, died in 1605, leaving behind him a record that has been surpassed by few. His son, Jehangir, who married the Persian lady Nur Jahan, ruled until 1627, bequeathing to an admiring posterity some notable buildings—the tomb of his father at Sikandra, part of the palace at Agra, and the palace and fortress of Lahore. His son, Shahjahan, was for many years occupied with wars in the Deccan, but found time to make his court of incredible magnificence and to build the most famous and beautiful of all tombs, the Taj Mahal, as well as the fort, palace and Juma Masjid at Delhi. The quarrels of his sons led to the deposition of Shahjahan by one of them, Aurangzeb, in 1658. This Emperor's rule was one of constant intrigue and fighting in every direction, the most important of his wars being a twenty-five years' struggle against the Marathas of the Deccan who, under the leadership of Sivaji, became a very powerful faction in Indian politics. His bigoted attitude towards Hinduism made Aurangzeb all the more anxious to establish his Empire on a firm basis in the south, but he was unable to hold his many conquests, and on his death (1707) the

Empire, for which his three sons were fighting, could not be held together. Internal disorder and Maratha encroachments continued during the reigns of his successors, and in 1739 a fresh danger appeared in the person of Nadir Shah, the Persian conqueror, who carried all before him. On his withdrawal, leaving Mahomed Shah on the throne, the old intrigues recommenced and the Marathas began to make the most of the opportunity offered to them by puppet rulers at Delhi and by almost universal discord throughout what had been the Mughal Empire. There is little to add to the history of Mahomedan India. Emperors continued to reign in name at Delhi up to the middle of the 19th century, but their territory and power had long since disappeared, being swallowed up either by the Marathas or by the British.

### European Settlements.

The voyage of Vasco da Gama to India in 1498 was what turned the thoughts of the Portuguese to the formation of a great Empire in the East. That idea was soon realized, for, from 1500 onwards, constant expeditions were sent to India and the first two Viceroy's in India—Almeida and Albuquerque—laid the foundations of a great Empire and of a great trade monopoly. Goa, taken in 1510, became the capital of Portuguese India and remains to this day in the hands of its captors, and the countless ruins of churches and forts on the shores of Western India, as also farther East at Malacca, testify to the zeal with which the Portuguese endeavoured to propagate their religion and to the care they took to defend their settlements. There were great soldiers and great missionaries among them—Albuquerque, da Cunha, da Castro in the former class, St. Francis Xavier in the latter. But the glory of Empire loses something of its lustre when it has to be paid for, and the constant drain of men and money from Portugal, necessitated by the attacks made on their possessions in India and Malaya, was found almost intolerable. The junction of Portugal with Spain, which lasted from 1580 to 1640, also tended to the downfall of the Eastern Empire and when Portugal became independent again, it was unequal to the task of competing in the East with the Dutch and English. The Dutch had little difficulty in wresting the greater part of their territory from the Portuguese, but the seventeenth century naval wars with England forced them to relax their hold upon the coast of India, and during the French wars between 1795 and 1811 England took all Holland's Eastern possessions, and the Dutch have left in India but few traces of their civilisation and of the once powerful East India Company of the Netherlands.

The first English attempts to reach India date from 1498 when Cabot tried to find the North-West passage, and these attempts were repeated all through the sixteenth century. The first Englishman to land in India is said to have been one Thomas Stephens (1579) who was followed by a number of merchant adventurers, but trade between the two countries really dates from 1600 when Elizabeth incorporated the East India Company which had been formed in London. Factories in India were founded only after Portuguese and Dutch opposition had been overcome, notably in the

sea fight off Swally (Suvali) in 1612. The first factory, at Surat, was for many years the most important English foothold in the East. Its establishment was followed by others, including Fort St. George, Madras, (1640) and Hughli (1651). In the history of these early years of British enterprise in India the cession of Bombay (1661) as part of the dowry of Catherine of Braganza stands out as a landmark; it also illustrates the weakness of the Portuguese at that date, since in return the King of England undertook to protect the Portuguese in India against their foes—the Marathas and the Dutch. Cromwell, by his treaty of 1654, had already obtained from the Portuguese an acknowledgment of England's right to trade in the East; and that right was now threatened, not by the Portuguese, but by Sivaji and by the general disorder prevalent in India. Accordingly, in 1686, the Company turned its attention to acquiring territorial power, and announced its intention to establish such a policy of civil and military power, and create and secure such a large revenue. . . . as may be the foundation of a large, well-grounded, sure English dominion in India for all time to come. Not much came of this announcement for some time, and no stand could be made in Bengal against the depredations of Aurangzeb. The foundations of Calcutta (1690) could not be laid by Job Charnock until after a humiliating peace had been concluded with that Emperor, and, owing to the difficulties in which the Company found itself in England, there was little chance of any immediate change for the better. The union of the old East India Company with the new one which had been formed in rivalry to it took place in 1708, and for some years peaceful development followed; though Bombay was always exposed by sea to attacks from the pirates, who had many strongholds within easy reach of that port, and on land to attacks from the Marathas. The latter danger was felt also in Calcutta. Internal dangers were numerous and still more to be feared. More than one mutiny took place among the troops sent out from England, and rebellions like that led by Keigwin in Bombay threatened to stifle the infant settlements. The public health was bad and the rate of mortality was at times appalling. To cope with such conditions strong men were needed, and the Company was in this respect peculiarly fortunate; the long list of its servants, from Oxenden and Aungier to Hastings and Raffles, contains many names of men who proved themselves good rulers and far-sighted statesmen, the finest Empire-builders the world has known.

Attempts to compete with the English were made of course. But the schemes of the Emperor Charles VI to secure a share of the Indian trade were not much more successful than those made by Scotland, Denmark, Sweden, and Russia. By the French, who founded Pondicherry and Chandernagore towards the end of the 17th century, much more was achieved, as will be seen from the following outline of the development of British rule.

### The French Wars.

When war broke out between England and France in 1744, the French had acquired a

strong position in Southern India, which had become independent of Delhi and was divided into three large States—Hyderabad, Tanjore, and Mysore—and a number of petty states under local chieftains. In the affairs of these States Duplex, when Governor of Pondicherry, had intervened with success, and when Madras was captured by a French squadron, under La Bourdonnais (1746) Duplex wished to hand it over to the Nawab of Arcot—a deputy of the Nizam's who ruled in the Carnatic. The French, however, kept Madras, repelling an attack by the disappointed Nawab as well as the British attempts to recapture it. The treaty of Aix-la-Chapelle restored Madras to the English. The fighting had shown the Indian powers the value of European troops, and this was again shown in the next French war (1750-54) when Clive achieved enduring fame by his capture and subsequent defence of Arcot. This war arose from Duplex supporting candidates for the disputed successions at Arcot and Hyderabad while the English at Madras put forward their own nominees. One of Duplex's officers, the Marquis de Bussy, persuaded the Nizam to take into his pay the army which had established his power, and in return the Northern Circars, between Orisa and Madras, was granted to the French. This territory, however, was captured by the English in the seven years' war (1756-63). Duplex had by then been recalled to France. Lally, who had been sent to drive the English out of India, captured Fort St. David and invested Madras. But the victory which Colonel (Sir Eyre) Coote won at Wandiwash (1760) and the surrender of Pondicherry and Gingee put an end to the French ambitions of Empire in Southern India. Pondicherry passed more than once from the one nation to the other before settling down to its present existence as a French colony in miniature.

### **Battle of Plassey.**

While the English were fighting the third French war in the South they became involved in grave difficulties in Bengal, where Siraj-ud-Daula had acceded to power. The headquarters of the English at Calcutta were threatened by that ruler who demanded they should surrender a refugee and should cease building fortifications. They refused and he marched against them with a large army. Some of the English took to their ships and made off down the river, the rest surrendered and were cast into the jail known as the "Black Hole." From this small and stifling room 23 persons, out of 146, came out alive the next day. Clive who was at Madras, immediately sailed for Calcutta with Admiral Watson's squadron, recaptured the town (1757), and, as war with the French had been proclaimed, proceeded to take Chandernagore. The Nawab Siraj-ud-Daula then took the side of the French, and Clive, putting forward Mir Jafar as candidate for the Nawab's throne, marched out with an army consisting of 900 Europeans, 2,000 sepoys and 8 pieces of artillery against the Nawab's host of over 60,000. The result was the historic battle of Plassey (June 23) in which Clive, after hesitating on the course to be pursued, routed the Nawab. Mir Jafar was put on the throne

at Murshidabad, and the price of this honour was put at £ 2,340,000 in addition to the grant to the Company of the land round Calcutta now known as the District of the twenty-four Parganas. In the year after Plassey, Clive was appointed Governor of Bengal and in that capacity sent troops against the French in Madras and in person led a force against the Oudh army that was threatening Mir Jafar, in each case with success. From 1760 to 1765 Clive was in England. During his absence the Council at Calcutta deposed Mir Jafar and, for a price, put Mir Kasim in his place. This ruler moved his capital to Monghyr, organized an army, and began to intrigue with the Nawab Wazir of Oudh. He soon found, in a dispute over customs dues; an opportunity of quarrelling with the English and the first shots fired by his followers were the signal for a general rising in Bengal. About 200 Englishmen and a number of sepoys were massacred, but his trained regiments were defeated at Gharia and Odeynullah, and Mir Kasim sought protection from the Nawab of Oudh. But in 1764, after quelling a sepoy mutiny in his own camp by blowing 24 ring-leaders from the guns, Major (Sir Hector) Munro defeated the joint forces of Shah Alam, the Mughal Emperor, and the Nawab of Oudh in the battle of Buxar. In 1765 Clive (now Baron Clive of Plassey) returned as Governor. "Two landmarks stand out in his policy. First, he sought the substance, although not the name, of territorial power, under the fiction of a grant from the Mughal Emperor. Second, he desired to purify the Company's service, by prohibiting illicit gains, and by guaranteeing a reasonable pay from honest sources. In neither respect were his plans carried out by his immediate successors. But our efforts towards a sound administration date from this second Governorship of Clive, as our military supremacy dates from his victory at Plassey." Before Clive left India; in 1767, he had readjusted the divisions of Northern India and had set up a system of Government in Bengal by which the English received the revenues and maintained the army while the criminal jurisdiction was vested in the Nawab. The performance of his second task, the purification of the Company's service, was hotly opposed but carried out. He died in 1774 by his own hand, the House of Commons having in the previous year censured him, though admitting that he did render "great and meritorious services to his country."

### **Warren Hastings.**

The dual system of government that Clive had set up proved a failure and Warren Hastings was appointed Governor, in 1772, to carry out the reforms settled by the Court of Directors which were to give them the entire care and administration of the revenues. Thus Hastings had to undertake the administrative organization of India, and, in spite of the factious attitude of Philip Francis, with whom he fought a duel and of other members of his Council, he reorganized the civil service, reformed the system of revenue collection, greatly improved the financial position of the Company; and created courts of justice and some semblance of a police force. From 1772 to 1774 he was Governor of Bengal, and from 1774 to 1776

He was the first Governor-General, nominated under an Act of Parliament passed in the previous year. His financial reforms, and the forced contributions he enacted from the rebellious Chet Singh and the Begam of Oudh, were interpreted in England as acts of oppression and formed, together with his action in the trial of Nuncmar for forgery, the basis of his seven years' trial before the House of Lords which ended in a verdict of not guilty on all the charges. But there is much more for which his administration is justly famous. The recovery of the Marathas from their defeat at Panipat was the cardinal factor that influenced his policy towards the native states. One frontier was closed against Maratha invasion by the loan of a British brigade to the Nawab Wazir of Oudh, for his war against the Rohillas, who were intriguing with the Marathas. In Western India he found himself committed to the two Maratha wars (1775-82) owing to the ambition of the Bombay Government to place its own nominee on the throne of the Peshwa at Poona, and the Bengal troops that he sent over made amends, by the conquest of Sujrat and the capture of Gwalior, for the disgrace of Wadgaon where the Marathas overpowered a Bombay army. In the South—where interference from Madras had already led (1769) to what is known as the first Mysore war, a disastrous campaign against Hyder Ali and the Nizam—he found the Madras Government again in conflict with those two potentates. The Nizam he won over by diplomacy, but against Hyder Ali he had to despatch a Bengal army under Sir Eyre Coote. Hyder Ali died in 1782 and two years later a treaty was made with his son Tipu. It was in these acts of intervention in distant provinces that Hastings showed to best advantage as a great and courageous man, cautious, but swift in action when required. He was succeeded, after an interregnum, by Lord Cornwallis (1786-93) who built on the foundations of civil administration laid by Hastings, by entrusting criminal jurisdiction to Europeans and establishing an Appellate Court of Criminal Judicature at Calcutta. In the Civil Service he separated the functions of the District Collector and Judge and organized the "writers" and "merchants" of the Company into an administrative Civil Service. This system was subsequently extended to Madras and Bombay. Lord Cornwallis is better known for his introduction, on orders from England, of the Permanent Settlement in Bengal. (See article on Land Revenue). A third Mysore war was waged during his tenure of office which ended in the submission of Tipu Sultan. Sir John Shore (Lord Teignmouth), an experienced Civil Servant, succeeded Lord Cornwallis, and, in 1798, was followed by Lord Wellesley, the friend of Pitt, whose projects were to change the map of India.

#### Lord Wellesley's Policy.

The French in general, and "the Corsican" in particular, were the enemy most to be dreaded for a few years before Lord Wellesley took up his duties in India, and he formed the scheme of definitely ending French schemes in Asia by placing himself at the head of a great Indian confederacy. He started by obtaining from the Nawab of Oudh the cession of

large tracts of territory in lieu of payments overdue as subsidies for British troops, he then won over the Nizam to the British side, and after exposing the intrigues of Tipu Sultan with the French, embarked on the fourth Mysore war which ended (1799) in the fall of Seringapatam and the gallant death of Tipu. Part of Mysore, the Carnatic, and Tanjore roughly constituting the Madras Presidency of to-day then passed to British rule. The five Maratha powers—the Peshwa of Poona; the Gackwar of Baroda, Sindhia of Gwalior, Holkar of Indore and the Raja of Nagpur—had still to be brought into the British net. The Peshwa, after being defeated by Holkar, fled to British territory and signed the Treaty of Basscin which led to the third Maratha war (1802-04) as it was regarded by Sindhia and the Raja of Nagpur as a betrayal of Maratha independence. In this, the most successful of British campaigns in India, Sir Arthur Wellesley (the Duke of Wellington) and General (Lord) Lake carried all before them, the one by his victories at Assaye and Argaum and the other at Aligarh and Laswari. Later operations, such as Colonel Monson's retreat through Central India; were less fortunate. The great acquisitions of territory made under Lord Wellesley proved so expensive that the Court of Directors, becoming impatient, sent out Lord Cornwallis a second time to make peace at any price. He, however, died soon after his arrival in India, and Sir George Barlow carried on the government (1805-7) until the arrival of a stronger ruler, Lord Minto. He managed to keep the peace in India for six years, and to add to British dominions by the conquest of Java and Mauritius. His foreign policy was marked by another new departure, inasmuch as he opened relations with the Punjab, Persia, and Afghanistan, and concluded a treaty with Ranjit Singh, at Lahore, which made that Sikh ruler the loyal ally of the British for life.

The successor of Lord Minto was Lord Moira; who found himself obliged almost at once to declare war on the Gurkhas of Nepal, who had been encroaching on British territory. After initial reverses, the English, under General Ochterlony, were successful and the Treaty of Sagaul (1816) was drawn up which defines British relations with Nepal to the present day. For this success Lord Moira was made Marquis of Hastings. In the same year he made preparations for the last Maratha war (1817-18) which was made necessary by the lawless conduct of the Pindaris, gangs of Pathan or Rohilla origin, whose chief patrons were the rulers of Native States. The large number of 120,000 that he collected for this purpose destroyed the Pindaris, annexed the dominions of the rebellious Peshwa of Poona, protected the Rajput States; made Sindhia enter upon a new treaty, and compelled Holkar to give up part of his territory. Thus Lord Hastings established the British power more firmly than ever, and when he resigned, in 1823, all the Native States outside the Punjab had become parts of the political system and British interests were permanently secured from the Persian Gulf to Singapore. Lord Amherst followed Lord Hastings, and his five years' rule (1823-28) are memorable for the first Burmese war and the capture of Bharatpur. The former opera-

tion was undertaken owing to the insolent demands and raids of the Burmese, and resulted in the Burmese ceding Assam, Aracan, and the coast of Martaban and their claims to the lower provinces. The capture of Bharatpur by Lord Combermere (1826) wiped out the repulse which General Lake had received there twenty years earlier. A disputed succession on this occasion led to the British intervention.

### Social Reform.

A former Governor of Madras, Lord William Bentinck, was the next Governor-General. His epitaph by Macaulay, says: "He abolished cruel rites; he effaced humiliating distinctions; he gave liberty to the expression of public opinion; his constant study was to elevate the intellectual and moral character of the nations committed to his charge."

Some of his financial reforms, forced on him from England, and his widening of the gates by which educated Indians could enter the service of the Company, were most unpopular at the time, but were eclipsed by the acts he took for the abolition of *Sati*, or widow-burning, and the suppression—with the help of Captain Sleeman—of the professional hereditary assassins known as *Thugs*. In 1832 he annexed Cachar, and, two years later, Coorg. The incompetence of the ruler of Mysore forced him to take that State also under British administration—where it remained until 1881. His rule was marked in other ways by the despatch of the first steamship that made the passage from Bombay to Suez, and by his settlement of the long educational controversy in favour of the advocates of instruction in English and the vernaculars. Lord William Bentinck left India (1835) with his programme of reforms unfinished. The new Charter Act of 1833 had brought to a close the commercial business of the Company and emphasized their position as rulers of an Indian Empire in trust for the Crown. By it the whole administration, as well as the legislation of the country, was placed in the hands of the Governor-General in Council, and authority was given to create a Presidency of Agra. Before his retirement Bentinck assumed the statutory title of Governor-General of India (1834), thus marking the progress of consolidation since Warren Hastings in 1774 became the first Governor-General of Fort William. Sir Charles Metcalfe, being senior member of Council, succeeded Lord William Bentinck, and during his short tenure of office carried into execution his predecessor's measure for giving entire liberty to the press.

### Afghan Wars.

With the appointment of Lord Auckland as Governor-General (1839-42) there began a new era of war and conquest. Before leaving London he announced that he looked with exultation to the prospect of "promoting education and knowledge; and of extending the blessings of good Government and happiness to millions in India;" but his administration was almost exclusively comprised in a fatal expedition to Afghanistan, which dragged in its train the annexation of Sind, the Sikh wars, and the inclusion of Baluchistan in the protectorate of India. The first Afghan war was undertaken partly to counter the Russian advance

in Central Asia and partly to place on the throne at Kabul the dethroned ruler Shah Shuja in place of Dost Mahomed. The latter object was easily attained (1839) and for two years Afghanistan remained in the military occupation of the British. In 1841 Sir Alexander Burnes was assassinated in Kabul and Sir William Macanaghten suffered the same fate in an interview with the son of Dost Mahomed. The British commander in Kabul, Gen. Elphinstone, was old and feeble, and after two months delay he led his army of 4,500 and 12,000 camp followers back towards India in the depth of winter. Between Kabul and Jallalabad the whole force perished, either at the hands of the Afghans or from cold, and Dr. Brydon was the only survivor who reached the latter city. Lord Ellenborough succeeded Lord Auckland and was persuaded to send an army of retribution to relieve Jallalabad. One force under Gen. Pollock relieved Jallalabad and marched on Kabul, while Gen. Nott, advancing from Kandahar, captured Ghazni and joined Pollock at Kabul (1842). The bazaar at Kabul was blown up, the prisoners rescued, and the army returned to India leaving Dost Mahomed to take undisputed possession of his throne. The drama ended with a bombastic proclamation, from Lord Ellenborough and the parade through the Punjab of the (spurious) gates of Somnath taken from the tomb of Mahmud of Ghazni.

### Sikh Wars.

Lord Ellenborough's other wars—the conquest of Sind by Sir Charles Napier and the suppression of an outbreak in Gwalior—were followed by his recall, and the appointment of Sir Henry (1st Lord) Hardinge to be Governor-General. A soldier Governor-General was not unacceptable, for it was felt that a trial of strength was imminent between the British and the remaining Hindu power in India, the Sikhs. Ranjit Singh, the founder of the Sikh Kingdom, had died in 1839, loyal to the end to the treaty he had made with Metcalfe thirty years earlier. He left no son capable of ruling, and the *khalsa*, or central council of the Sikh army, was burning to measure its strength with the British sepoys. The intrigues of two men, Lal Singh and Fej Singh, to obtain the supreme power led to their crossing the Sutlej and invading British territory. Sir Hugh Gough, the Commander in Chief, and the Governor-General hurried to the frontier, and within three weeks four pitched battles were fought—at Mudki, Ferozeshah, Aliwal and Sohraon. The Sikhs were driven across the Sutlej and Lahore surrendered to the British; but the province was not annexed. By the terms of peace the infant Dhuleep Singh was recognized as Rajah; Major Henry Lawrence was appointed Resident, to assist the Sikh Council of Regency, at Lahore; the Jullundur Doab was added to British territory; the Sikh army was limited; and a British force was sent to garrison the Punjab on behalf of the child Rajah. Lord Hardinge returned to England (1848) and was succeeded by Lord Dalhousie, the greatest of Indian proconsuls.

Dalhousie had only been in India a few months when the second Sikh war broke out. In the attack on the Sikh position at Chillianwala, the British lost 2,400 officers and men

## *The Sepoy Mutiny.*

besides four guns and the colours of three regiments: but, before reinforcements could arrive from England, bringing Sir Charles Napier as Commander-in-Chief, Lord Gough had restored his reputation by the victory of Gujrat which absolutely destroyed the Sikh army. As a consequence the Punjab was annexed and became a British province (1849), its pacification being so well carried out, under the two Lawrences that on the out-break of the Mutiny eight-years later it remained not only quiet but loyal. In 1852 Lord Dalhousie had again to embark on war, this time in Burma, owing to the ill-treatment of British merchants in Rangoon. The lower valley of the Irawaddy was occupied from Rangoon to Prome and annexed, under the name of Pegu, to those provinces that had been acquired in the first Burmese war. British territories were enlarged in many other directions during Lord Dalhousie's tenure of office. His "doctrine of lapse" by which British rule was substituted for Indian in States where continued misrule on the failure of a dynasty made this change possible, came into practice in the cases of Satara, Jhansi, and Nagpur (which last named state became the Central Provinces) where the rulers died without leaving male heirs. Oudh was annexed on account of its misrule. Dalhousie left many other marks on India. He reformed the administration from top to bottom, founded the Public Works Department, initiated the railways, telegraphs and postal system, and completed the great Ganges canal. He also detached the Government of Bengal from the charge of the Governor-General, and summoned representatives of the local Governments to the deliberations of the Government of India. Finally, in education he laid down the lines of a department of public instruction and initiated more practical measures than those devised by his predecessors. It was his misfortune that the mutiny, which so swiftly followed his resignation, was by many critics in England attributed to his passion for change.

### **The "Sepoy Mutiny.**

Dalhousie was succeeded by Lord Canning in 1856, and in the following year the sepoys of the Bengal army mutinied and all the valley of the Ganges, from Delhi to Patna rose in rebellion. The causes of this convulsion are difficult to estimate, but are probably to be found in the unrest which followed the progress of English civilisation; in the spreading of false rumours that the whole of India was to be subdued; in the confidence the sepoy troops had acquired in themselves under British leadership; and in the ambition of the educated classes to take a greater share in the government of the country. Added to this, there was in the deposed King of Delhi, Bahadur Shah, a centre of growing disaffection. Finally there was the story—not devoid of truth—that the cartridges for the new Enfield rifle were greased with fat that rendered them unclean for both Hindus and Mahomedans. And when the mutiny did break out it found the Army without many of its best officers who were employed in civil work, and the British troops reduced, in spite of Lord Dalhousie's warnings, below the number he considered essential for safety. On May 10

the sepoys at Meerut rose in mutiny, cut down a few Europeans, and, unchecked by the large European garrison, went off to Delhi where next morning the Mahomedans rose. From that centre the mutiny spread through the North-Western Provinces and Oudh into Lower Bengal. Risings in the Punjab were put down by Sir John Lawrence and his subordinates, who armed the Sikhs, and with their help reduced the sepoys, and Lawrence was subsequently able to send a strong body of Sikhs to aid in the siege of Delhi. The native armies of Madras and Bombay remained for the most part true to their colours. In Central India, the contingents of some of the great chiefs joined the rebels, but Hyderabad was kept loyal by the influence of its minister, Sir Salar Jung.

The interest of the war centres round Delhi, Cawnpore and Lucknow, though in other places massacres and fighting occurred. The siege of Delhi began on June 8 when Sir Henry Barnard occupied the Ridge outside the town. Barnard died of cholera early in July, and Thomas Reed, who took his place, was obliged through illness to hand over the command to Archdale Wilson. In August Nicholson arrived with a reinforcement from the Punjab. In the meantime the rebel force in Delhi was constantly added to by the arrival of new bodies of mutineers; attacks were frequent and the losses heavy: cholera and sun stroke carried off many victims on the Ridge: and when the final assault was made in September the Delhi army could only parade 4,720 infantry, of whom 1,960 were Europeans. The arrival of siege guns made it possible to advance the batteries on September 8, and by the 13th a breach was made. On the following day three columns were led to the assault, a fourth being held in reserve. Over the ruins of the Kashmir Gate, blown in by Home and Salkeld, Col. Campbell led his men and Nicholson formed up his troops within the walls. By nightfall the British, with a loss of nearly 1,200 killed and wounded, had only secured a foothold in the city. Six days' street fighting followed and Delhi was won; but the gallant Nicholson was killed at the head of a storming party. Bahadur Shah was taken prisoner, and his two sons were shot by Captain Hudson.

### **Massacre at Cawnpore.**

At Cawnpore the sepoys mutinied on June and found in Nana Sahib, the heir of the last Peshwa, a willing leader in spite of his former professions of loyalty. There a European force of 240 with six guns had to protect 870 non-combatants, and held out for 22 days, surrendering only on the guarantee of the Nana that they should have a safe conduct as far as Allahabad. They were embarking on the boats on the Ganges when fire was opened on them, the men being shot or hacked to pieces before the eyes of their wives and children and the women being mutilated and murdered in Cawnpore to which place they were taken back. Their bodies were thrown down a well just before Havelock, having defeated the Nana's forces, arrived to the relief. In Lucknow a small garrison held out in the Residency from July 2 to September 25 against tremendous odds and enduring the most fearful hardships. The relieving force, under Havelock and Outram, was itself invested, and the garrison was



not finally delivered until Sir Colin Campbell arrived in November. Fighting continued for 18 months in Oudh, which Sir Colin Campbell finally reduced, and in Central India, where Sir Hugh Rose waged a brilliant campaign against the disherited Rani of Jhansi—who died at the head of her troops—and Tantia Topi.

### Transfer to the Crown.

With the end of the mutiny there began a new era in India, strikingly marked at the outset by the Act for the Better Government of India (1858) which transferred the entire administration from the Company to the Crown. By that Act India was to be governed by, and in the name of, the Sovereign through a Secretary of State, assisted by a Council of fifteen members. At the same time the Governor-General received the title of Viceroy. The European troops of the Company, numbering about 24,000 officers and men were—greatly resenting the transfer—amalgamated with the Royal service, and the Indian Navy was abolished. On November 1, 1858, the Viceroy announced in Durbar at Allahabad that Queen Victoria had assumed the government of India, and proclaimed a policy of justice and religious toleration. A principle already enunciated in the Charter Act of 1833 was reinforced, and all, of every race or creed, were to be admitted as far as possible to those offices in the Queen's service for which they might be qualified. The aim of the Government was to be the benefit of all her subjects in India—"In their prosperity will be our strength, in their contentment our security, and in their gratitude our best reward." Peace was proclaimed in July, 1859, and in the cold weather Lord Canning went on tour in the northern provinces, to receive the homage of loyal chiefs and to assure them that the "policy of lapse" was at an end. A number of other important reforms marked the closing years of Canning's Viceroyalty. The India Councils Act (1833) augmented the Governor-General's Council, and the Councils of Madras and Bombay by adding non-official members, European and Indian, for legislative purposes only. By another Act of the same year High Courts of Judicature were constituted. To deal with the increased debt of India, Mr. James Wilson was sent from England to be Financial Member of Council, and to him are due the customs system, income tax, license duty, and State paper currency. The cares of office had broken down the Viceroy's health. Lady Canning died in 1862 and this hastened his departure for England where he died in June of that year. His successor, Lord Elgin, lived only a few months after his arrival in India, and was succeeded by Sir John (afterwards Lord) Lawrence, the "saviour of the Punjab."

### Sir John Lawrence.

The chief task that fell to Sir John Lawrence was that of reorganising the Indian military system, and of reconstructing the Indian army. The latter task was carried out on the principle that in the Bengal army the proportion of Europeans to Indians in the infantry and cavalry should be one to two, and in the Madras and Bombay armies one to three: the artillery was to be almost wholly European.

The reorganisation was carried out in spite of financial difficulties and the saddling of Indian revenues with the cost of a war in Abyssinia with which India had no direct concern; but operations in Bhutan were all the drain made on the army in India while the reorganising process was being carried on. Two severe famines—in Orissa (1866) and Bundelkhand and Upper Hindustan (1868-9) occurred while Sir John Lawrence was Viceroy, and he laid down the principle for the first time in Indian history, that the officers of the Government would be held personally responsible for taking every possible means to avert death by starvation. He also created the Irrigation Department under Col. (Sir Richard) Strachey. Two commercial crises of the time have to be noted. One seriously threatened the tea industry in Bengal. The other was the consequence of the wild gambling in shares of every description that took place in Bombay during the years of prosperity for the Indian cotton industry caused by the American Civil War. The "Share Mania," however, did no permanent harm to the trade of Bombay, but was, on the other hand, largely responsible for the series of splendid buildings begun in that city during the Governorship of Sir Bartle Frere. Sir John Lawrence retired in 1869, having passed through every grade of the service, from an Assistant Magistracy to the Viceroyalty. Lord Mayo, who succeeded him, created an Agricultural Department and introduced the system of Provincial Finance, thus fostering the impulse to local self-government. He also laid the foundation for the reform of the salt duties, thereby enabling his successors to abolish the inter-provincial customs lines. Unhappily his vast schemes for the development of the country by extending communications of every kind were not carried out to the full by him, for he was murdered in the convict settlement of the Andaman Islands, in 1872. Lord Northbrook (Viceroy 1872-6) had to exercise his abilities chiefly in the province of finance. A severe famine which threatened Lower Bengal in 1874 was successfully warded off by the organization of state relief and the importation of rice from Burma. The following year was notable for the deposition of the Gaikwar of Baroda for mis-government, and for the tour through India of the Prince of Wales (the late King Edward VII). The visit of the Duke of Edinburgh to India when Lord Mayo was Viceroy had given great pleasure to those with whom he had come in touch, and had established a kind of personal link between India and the Crown. The Prince of Wales's tour aroused unprecedented enthusiasm for and loyalty to the British Raj, and further encouragement was given to the growth of this spirit when, in a durbar of great magnificence held on January 1st, 1877, on the famous Ridge at Delhi, Queen Victoria was proclaimed Empress of India. The Viceroy of that time, Lord Lytton, had, however, to deal with a situation of unusual difficulty. Two successive years of drought produced, in 1877-78, the worst famine India had known. The most strenuous exertions were made to mitigate its effects, and eight crores of rupees were spent in importing grain; but the loss of life was estimated at 5½ millions. At this time also Afghan affairs once more became prominent.

### Second Afghan War.

The Amir, Sher Ali, was found to be intriguing with Russia and that fact, coupled with his repulse of a British mission led to the second Afghan War. The British forces advanced by three routes—the Khyber, the Kurram, and the Bolan—and gained all the important vantage points of Eastern Afghanistan. Sher Ali fled and a treaty was made with his son Yakub Khan, which was promptly broken by the murder of Sir Louis Cavagnari, who had been sent as English envoy to Kabul. Further operations were thus necessary, and Sir F. (now Lord) Roberts advanced on the capital and defeated the Afghans at Charasia. A rising of the tribes followed, in spite of Sir D. Stewart's victory at Ahmed Kheyl and his advance from Kabul to Kandahar. A pretender, Sirdar Ayub Khan, from Herat prevented the establishment of peace, defeated Gen. Burrows' brigade at Maiwand, and invested Kandahar. He was routed in turn by Sir F. Roberts who made a brilliant march from Kabul to Kandahar. After the British withdrawal fighting continued between Ayub Khan and Abdur Rahman, but the latter was left undisputed Amir of Afghanistan until his death in 1901.

In the meantime Lord Lytton had resigned (1880) and Lord Ripon was appointed Viceroy by the new Liberal Government. Lord Ripon's administration is memorable for the freedom given to the Press by the repeal of the Vernacular Press Act, for his scheme of local self-government which developed municipal institutions, and for the attempt to extend the jurisdiction of the criminal courts in the Districts over European British subjects, independently of the race or nationality of the presiding judge. This attempt, which created a feeling among Europeans in India of great hostility to the Viceroy, ended in a compromise in 1884. Other reforms were the re-establishment of the Department of Revenue and Agriculture, the appointment of an Education Commission with a view to the spread of popular instruction on a broader basis, and the abolition by the Finance Minister (Sir Evelyn Baring, now Lord Cromer) of a number of customs duties. Lord Dufferin, who succeeded Lord Ripon in 1884, had to give his attention more to external than internal affairs; one of his first acts was to hold a durbār at Rawalpindi for the reception of the Amir of Afghanistan which resulted in the strengthening of British relations with that ruler. In 1885 a third Burmese war became necessary owing to the truculent attitude of King Thibaw and his intrigues with foreign Powers. The expedition, under General Prendergast, occupied Mandalay without difficulty and King Thibaw was exiled to Ratnagiri, where he still lives on a liberal pension. His dominions of Upper Burma were annexed to British India on the first of January, 1886.

### The Russian Menace.

Of greater importance at the time were the measures taken to meet a possible, and as it then appeared a probable, attack on India by Russia. These preparations, which cost over two million sterling, were hurried on because of a collision which occurred between Russian and Afghan troops at Penjdeh, during the delimitation of the Afghan frontier

towards Central Asia, and which seemed likely to lead to a declaration of war by Great Britain. War was averted, but the Penjdeh incident had called attention to a menace that was to be felt for nearly a generation more; it had also served to elicit from the Princes of India an unanimous offer of troops and money in case of need. That offer bore fruit under the next Viceroy, Lord Lansdowne, when the present system of Imperial Service Troops was organised. Under Lord Lansdowne's rule also the defences of the North-Western frontier were strengthened, on the advice of Sir Frederick (now Earl) Roberts, who was then Commander-in-Chief in India. Another form of precautionary measure against the continued aggression of Russia was taken by raising the annual subsidy paid by the Indian Government to the Amir from eight to twelve lakhs.

On the North-Eastern frontier there occurred (1891) in the small State of Manipur a revolution against the Raja that necessitated an inquiry on the spot by Mr. Quinton, the Chief Commissioner of Assam. Mr. Quinton, the commander of his escort, and others, were treacherously murdered in a conference and the escort ignominiously retreated. This disgrace to British arms led to several attacks on frontier outposts which were brilliantly defeated. Manipur was occupied by British troops and the government of the State was reorganised under a Political Agent. Lord Lansdowne's term of office was distinguished by several other events, such as the passing of the Parliamentary Act (Lord Cross's Act, 1892) which increased the size of the Legislative Councils as well as the number of non-officials in them; legislation aimed at social and domestic reform among the Hindus; and the closing of the Indian Mints to the free coinage of silver (1893). In Burma great progress was made, under Sir Alexander Mackenzie, as Chief Commissioner: comparative order was established, and large schemes for the construction of railways, roads, and irrigation works were put in hand. (The Province was made a Lieutenant-Governorship in 1897).

### Frontier Campaigns.

Lord Elgin, who succeeded Lord Lansdowne in 1894, was confronted at the outset with a deficit of Rs. 2½ crores, due to the fall in exchange. (In 1895 the rupee fell as low as 1s. 1d.) To meet this the old five per cent. import duties were reimposed on a number of commodities, but not on cotton goods; and within the year the duty was extended to piece-goods, but not to yarn. The reorganisation of the Army, which involved the abolition of the old system of Presidency Armies, had hardly been carried out when a number of risings occurred along the North-West frontier. In 1895 the British Agent in Chitral—which had come under British influence two years previously when Sir H. M. Durand had demarcated the southern and eastern boundaries of Afghanistan—was besieged and had to be rescued by an expeditionary force. Two years later the Wazirs, Swatis, and Mohmands attacked the British positions in Malakand, and the Afridis closed the Khyber Pass. Peace was only established after a prolonged campaign (the Tirah campaign) in which 40,000 troops were employed, and over 1,000 officers

and men had been lost. This was in itself a heavy burden on the finances of India, which was increased by the serious and wide-spread famine of 1896-97 and by the appearance in India of bubonic plague. The methods taken to prevent the spread of that disease led, in Bombay, to rioting, and elsewhere to the appearance in the vernacular press of seditious articles which made it necessary to make more stringent the law dealing with such writings.

### Lord Curzon's Viceroyalty.

With famine and plague Lord Curzon also, who succeeded Lord Elgin in 1899, had to deal. In 1901 the cycle of bad harvests came to an end; but plague increased, and in 1904 deaths from it were returned at over one million. Of the many problems to which Lord Curzon directed his attention, only a few can be mentioned here: some indeed claim that his greatest work in India was not to be found in any one department but was in fact the general gearing up of the administration which he achieved by his unceasing energy and personal example of strenuous work. He had at once to turn his attention to the North-West frontier. The British garrisons beyond our boundary were gradually withdrawn and replaced by tribal levies, and British forces were concentrated in British territory behind them as a support. An attempt was made to check the arms traffic and work on strategic railways was pushed forward. The fact that in seven years he only spent a quarter of a million upon repressive measures and only found it necessary to institute one blockade (against the Mahsud Waziris) is the justification of this policy of compromise between the Lawrence and Forward schools of thought. In 1901 the trans-Indus districts of the Punjab were separated from that Province, and together with the political charges of the Malakand, the Khyber, Kurram, Tochi, and Wana were formed into the new North-West Frontier Province, under a Chief Commissioner directly responsible to the Government of India. That year also witnessed the death of Abdur Rahman, the Amir of Afghanistan, and the establishment of an understanding with his successor Habibullah. In 1904 the attitude of the Dalai Lama of Tibet being pro-Russian and anti-British, it became necessary to send an expedition to Lhasa under Colonel (Sir Francis) Younghusband. The Dalai Lama abdicated and a treaty was concluded with his successor.

### Lord Curzon as Viceroy.

In his first year of office Lord Curzon passed the Act which, in accordance with the recommendations of the Fowler Commission, practically fixed the value of the rupee at 1s. 4d., and in 1900 a Gold Reserve fund was created. The educational reforms that marked this Viceroyalty are dealt with elsewhere: chief among them was the Act of 1904 reorganizing the governing bodies of Indian universities. Under the head of agrarian reform must be mentioned the Punjab Land Alienation Act, designed to free the cultivators of the soil from the clutches of money-lenders, and the institution of Agricultural banks. The efficiency of the Army was increased (Lord Kitchener was Commander-in-Chief) by the rearmament of the Indian Army, the strengthening of the

artillery, and the reorganization of the transport service. In his relations with the Feudatory Chiefs, Lord Curzon emphasized their position as partners in administration, and he founded the Imperial Cadet Corps to give a military education to the sons of ruling and aristocratic families. In 1902 the British Government obtained from the Nizam a perpetual lease of the Assigned Districts of Berar in return for an annual payment of 25 lakhs. The accession of King Edward VII was proclaimed in a splendid Durbar on January 1, 1903. In 1904 Lord Curzon returned to England for a few months but was re-appointed to a second term of office, Lord Amthill, Governor of Madras, having acted as Viceroy during his absence. The chief act of this second term was the partition of Bengal and the creation of a new Province of Eastern Bengal and Assam—a reform, designed to remove the systematic neglect of the trans-Gangetic areas of Bengal, which evoked bitter and prolonged criticism. In 1905 Lord Curzon resigned, being unable to accept the proposals of Lord Kitchener for the readjustment of relations between the Army headquarters and the Military Department of the Government, and being unable to obtain the support of the Home Government. He was succeeded by Lord Minto, the grandson of a former Governor-General. It was a stormy heritage to which Lord Minto succeeded, for the unrest which had long been noticed developed in one direction into open sedition. The occasion of the outburst in Bengal was the partition of that province. The causes of the flood of seditious writings and speeches, of the many attempts at assassination, and of the boycott of British goods are less easily definable. The mainspring of the unrest was “a deep-rooted antagonism to all the principles upon which Western society, especially in a democratic country like England, has been built up.”

### Political Outrages.

Outside Bengal attempts to quell the disaffection by the ordinary law were fairly successful. But scarcely any province was free from disorder of some kind and, though recourse was had to the deportation of persons without reason assigned under an Act of 1818, special Acts had to be passed to meet the situation, viz.:—an Explosives Act, a Prevention of Seditious Meetings Act, and a Criminal Law Amendment Act which provides for a magisterial inquiry in private and a trial before three judges of the High Court without a jury. The need for this reinforcement of the law may be shown by a list of the principal political outrages in India while Lord Minto was Viceroy and subsequent to his departure:—

December, 1907.—Attempt to wreck the Lieutenant-Governor of Bengal's train at Naraingarh.

December, 1907.—Attempt on the life of Mr. B. C. Allen at Gwalundo.

March, 1908.—Second attempt to wreck Sir Andrew Fraser's train at Chandernagore.

March, 1908.—Attempt to shoot Mr. H. K. Gibb, a missionary, at Kushtea.

April 11th, 1908.—Bomb thrown at the Mayor of Chandernagore.

April 30th, 1908.—Murder of Mrs. and Miss Kennedy at Mozaferpore.

August, 1908.—Mr. Camble, Mill-manager, severely injured by a bomb on the E. B. S. Railway.

August, 1908.—Murder of Narendra Nath Gossain, the approver in the Alipore case, in Alipore Jail.

November 6th, 1908.—Attempt on the life of Sir Andrew Fraser at Overtoun Hall.

November 9th, 1908.—Murder of Inspector Nundo Lal Banerjee, who arrested Khudiram Bose, in Serpentine Lane, Calcutta.

November, 1908.—Sukumar, alleged informer, murdered at Dacca.

February 10th, 1908.—Murder of Babu Ashutosh Biswas in the Courtyard at Alipore.

June, 1909.—Prio Mohun Chatterji (brother of an approver) stabbed to death at Fatchjangpur.

July 1st, 1909.—Assassination of Lieutenant-Colonel Sir William Curzon Wylie, at the Imperial Institute, London.

November 13th, 1909.—Bomb explosion near His E. Lord Minto's carriage at Ahmedabad.

December 21st, 1909.—Assassination of Mr. A. M. T. Jackson, I.C.S., Collector of Nasik.

January 24th, 1910.—Murder of Khan Bahadur Shams-ul-Alum.

February 21st, 1911.—Murder of Head Constable Sriah Chakravarty.

March 2nd, 1911.—Attempt to murder Mr. Cowley, P.W.D., with a bomb in Calcutta.

April 19th, 1911.—Babu Manmohan Dey, witness in Munshiganj bomb case, shot dead at Routhbog.

June 17th, 1911.—Murder of Mr. Asho, Collector of Tinnevely.

June 18th, 1911.—Murder of Sub-Inspector Raj Kumar Roy at Mymensingh.

July 1911.—Sonarang case, Rashun Dewan Duffadar, Amari-Dewan, and Kati Benode Chakravarti shot at Netrapati.

September 21st, 1912.—Head Constable Radhika Roy shot dead at Dacca.

December 17th, 1912.—Attempt to assassinate Abdul Rahaman, one of the witnesses for the police in the Midnapore conspiracy case.

December 23rd, 1912.—H. E. Lord Hardinge wounded, and one of his servants killed, by a bomb during the State entry into Delhi.

May 17th, 1913.—Chaprasai in the employ of the Lahore Gymkhana Club killed by a bomb near the Lawrence Gardens, Lahore.

September 20th, 1913.—Murder of Head Constable Haripada Deb, College Square, Calcutta.

September 30th, 1913.—Bankim Chandra Chowdhury, Inspector of Police at Mymensingh, formerly of Dacca, killed by a bomb.

The list, it will be seen, includes two attempts on the life of the Viceroy himself. It does not include a number of equally significant disturbances, such as the riots in Bombay (June 1908), during the trial of Tilak, which led to considerable loss of life. Concurrently with these repressive measures steps were taken to extend representative institutions. In 1907

a Hindu and a Mahomedan were appointed to the Secretary of State's Council, and in 1909 a Hindu was appointed for the first time to the Viceroy's Council. The Indian Councils Act of 1909 carried this policy farther by reconstituting the legislative councils and conferring upon them wider powers of discussion. The executive councils of Madras and Bombay were enlarged by the addition of an Indian member.

### Lord Minto.

As regards foreign policy, Lord Minto's Vicereignty was distinguished by the conclusion (1907) between Great Britain and Russia of an agreement on questions likely to disturb the friendly relations of the two countries in Asia generally, and in Persia, Afghanistan and Tibet in particular. Two expeditions had to be undertaken on the North-West frontier, against the Zakka Khels and the Mohmands; and ships of the East Indies Squadron were frequently engaged off Maskat and in the Persian Gulf in operations designed to check the traffic in arms through Persia and Mekran to the frontier of India. Towards Native States Lord Minto adopted a policy of less interference than that followed by his predecessor. He invited their views on sedition; and, in a speech at Udaipur, disclaimed any desire to force a uniform system of administration in Native States, and said he preferred their development with due regard to treaties and local conditions. Lord Minto left India in November, 1910, a few weeks after Lord Morley had resigned the Secretaryship of State; the tenure of their respective posts having been practically identical in point of time. The position of the Viceroy had in those years materially changed. Lord Minto had a weak Council, and this weakness was reflected in the government of Bengal and Madras; but it is more important to note that Lord Morley had extended the policy of transferring the actual government of India from India to London, to such an extent that the Under-Secretary for India was able to describe the Viceroy as merely the agent of the Secretary of State.

### Visit of the King and Queen.

Sir Charles (Lord) Hardinge was appointed to succeed Lord Minto. His first year in India was marked by a weak monsoon and famine in parts of Western India, still more by the visit to India of the King Emperor and the Queen, who arrived at Bombay on December 2, 1911. From there they proceeded to Delhi where, in the most magnificent durbars ever held in India, the coronation was proclaimed and various boons, including an annual grant of 50 lakhs for popular education, were announced. At the same ceremony His Majesty announced the transfer of the capital of India from Calcutta to Delhi; the reunion of the two Bengals under a Governor-in-Council; the formation of a new Lieutenant-Governorship for Behar, Chota Nagpur, and Orissa; and the restoration of Assam to the charge of a Chief Commissioner. On December 14, a review of 60,000 British and Indian troops was held, and on the 15th Their Majesties each laid a founda-

tion stone of the new capital. From Delhi the King went to Nepal, and the Queen to Agra and Rajputana, afterwards meeting at Bankipur and going to Calcutta. Thence they returned to Bombay and sailed for England on January 10. "From all sources, public and private," wrote His Majesty to the Premier, "I gather that my highest hopes have been realised. . . . Our satisfaction will be still greater if time proves that our visit has conduced to the lasting good of India and of the Empire at large."

In March, 1912, a committee of experts was appointed to advise the Government of India as to the site of the new capital. Temporary buildings were erected to accommodate the Government, and on December 23 the State entry into Delhi was made by the Viceroy. This ceremony was marred by an attempt on His Excellency's life as he passed down the Chandni Chauk. The bomb thrown from a house killed an attendant behind the Jrowdah in which the Viceroy was sitting, seriously wounded Lord Hardinge, but left Lady Hardinge unscathed. The courage displayed by their Excellencies was unsurpassed and elicited the admiration of all; but, in spite of the offer of large rewards, the assassin was not caught.

Educational schemes claimed a large place in public attention during 1912 and 1913. In the former year a Royal Commission, under the presidency of Lord Islington, was appointed to inquire into the public services of India. In 1912 also a Committee of four was appointed, under the Chairmanship of Field Marshal Lord Nicholson, to inquire into military policy and expenditure in India. In the following year a Royal Commission was appointed, under the Chairmanship of Mr. Austen Chamberlain, to investigate and report on certain administrative questions relating to Indian

finance and currency which had for some years been much discussed particularly in India.

In the North-East of India an expedition, under Gen. Bower, was despatched against the Abors for the punishment of the murderers of Mr. Noel Williamson.

In August, 1913, the demolition of a lavatory attached to a mosque in Cawnpore was made the occasion of an agitation among Indian Mahomedans and a riot in Cawnpore led to heavy loss of life. Of those present at the riot, 106 were put on trial but subsequently released by the Viceroy before the case reached the Sessions, and His Excellency was able to settle the mosque difficulty by a compromise that was acceptable to the local and other Mahomedans.

In October, 1913, it was announced that General Sir Beauchamp Duff had been appointed to succeed Sir O'Moore Creagh as Commander-in-Chief. Commenting on this *The Times* said it was a departure from the long tradition of alternately choosing the Commander-in-Chief from the British and the Indian Army. It considered however, that the departure was justified by the circumstances, although there was no lack of British officers with the necessary qualifications. There were special reasons for the nomination of Sir Beauchamp Duff, who as Adjutant-General in India, and Chief of Staff during Lord Kitchener's term gave proof of his thorough knowledge of Indian conditions and his exceptional powers as a military administrator. The Military changes in India in 1905 and 1909 had profoundly modified the duties of the Commander-in-Chief and had conferred on him alone duties formerly divided between the Commander-in-Chief and the Military Member of Council and had made him the administrative head of the Army.

The impulse which drove the British to India was not conquest but trade. The Government of India represents the slow evolution from conditions established to meet trading requirements. On September 24, 1599, a few years before the deaths of Queen Elizabeth and Akbar, the merchants of London formed an association for the purpose of establishing direct trade with the East and were granted a charter of incorporation. The Government of this Company in England was vested in a Governor with a General Court of Proprietors and a Court of Directors. The factories and affairs of the Company on the East and West Coast of India, and in Bengal, were administered at each of the principal settlements of Madras (Fort St. George), Bombay and Calcutta (Fort William), by a President or Governor and a Council consisting of the senior servants of the Company. The three "Presidencies" were independent of each other and subordinate only to the Directors in England.

## Territorial Responsibility Assumed.

The collapse of Government in India consequent on the decay of Moghul power and the intrigues of the French on the East Coast forced the officers of the Company to assume territorial responsibility in spite of their own desires and the insistent orders of the Directors. Step by step the Company became first the dominant, then the paramount power in India. In these changed circumstances the system of government by mutually independent and unwieldy councils of the merchants at the Presidency towns gave rise to grave abuses. Parliament intervened, and under the Regulating Act of 1773, a Governor-General and four councillors were appointed to administer the Presidency of Fort William (Bengal), and the supremacy of that Presidency over Madras and Bombay was for the first time established. The subordinate Presidencies were forbidden to wage war or make treaties without the previous consent of the Governor-General of Bengal in Council, except in cases of imminent necessity. Pitt's Act of 1784, which established the Board of Control in England, vested the administration of each of the three Presidencies in a Governor and three councillors, including the Commander-in-Chief of the Presidency Army. The control of the Governor-General-in-Council was somewhat extended, as it was again by the Charter Act of 1793. Under the Charter Act of 1833 the Company was compelled to close its commercial business, and it became a political and administrative body holding its territories in trust for the Crown. The same Act vested the direction of the entire civil and military administration and sole power of legislation in the Governor-General-in-Council, and defined more clearly the nature and extent of the control to be extended over the subordinate governments. After the Mutiny, there was passed, in 1858, an Act transferring the Government of India from the Company to the Crown. This Act made no important change in the administration in India, but the Governor-General, as representing the Crown, became known as the Viceroy. The Governor-General is the sole representative of the Crown in India; he is assisted by a Council, composed of high officials, each of whom is responsible for a special department of the administration.

## Functions of Government.

The functions of the Government of India are perhaps the most extensive of any great administration in the world. It claims a share in the produce of the land and in the Punjab and Bombay it has restricted the alienation of land from agriculturists to non-agriculturists. It undertakes the management of landed estates where the proprietor is disqualified. In times of famine it undertakes relief works and other remedial measures on a great scale. It manages a vast forest property and is the principal manufacturer of salt and opium. It owns the bulk of the railways of the country, and directly manages a considerable portion of them; it has constructed and maintains most of the important irrigation works; it owns and manages the post and telegraph systems; it has the monopoly of the Note issue, and it alone can set the mints in motion. It lends money to municipalities, rural boards, and agriculturists and occasionally to owners of historic estates. It controls the sale of liquor and intoxicating drugs and has direct responsibilities in respect to police, education, medical and sanitary operations and ordinary public works of the most intimate character. The Government has also close relations with the Native States which collectively cover more than one-third of the whole area of India and comprise more than one-fifth of its population. The distribution of these great functions between the Government of India and the provincial administrations fluctuates; broadly speaking it may be said that the tendency of the day is to confine the Government of India to control and the Local Governments to administration.

## Division of Responsibility.

The Government of India retains in its own hands all matters relating to foreign relations, defence, general taxation, currency, debt, tariffs, posts, telegraphs and railways. The ordinary internal administration—the assessment and collection of revenue, education, medical and sanitary arrangements, and irrigation, buildings and roads, fall within the purview of the Local Governments. In all these matters the Government of India exercises a general and constant control. It prescribes lines of general policy, and tests their application from the annual administration reports of the Local Authorities. It directly administers certain Imperial departments, such as Railways, Post Office, Telegraphs, the Survey of India and Geology; it employs a number of inspecting officers for those departments primarily left to Local Governments, including Agriculture, Irrigation, Forests, Medical and Archaeology. It receives, and when necessary modifies, the annual budgets of Local Governments; and every new appointment of importance, and every large addition even to minor establishments has to receive its specific sanction. There also exists a wide field of appeal to the Government of India from officials or private individuals who may feel themselves aggrieved by the action of Local Governments; and outside the Presidencies of Madras, Bombay and Bengal, the approval of the Governor-General is necessary to the appointment of some of the most important officers of the provincial administration.

The supervision of the principal Native States rests directly with the Governor-General in Council, but Local Governments have also responsibilities in this direction, where important States have historical association with them, and in the case of minor States.

### **Personnel of the Government.**

The Governor-General and the "ordinary" members of his Council are appointed by the Crown. No limit of time is specified for their tenure of office, but custom has fixed it at five years. There are six "ordinary" members of Council, three of whom must, at the time of their appointment, have been at least ten years in the service of the Crown in India, one of the three remaining members must be a Barrister, the qualifications of the fifth and sixth are not prescribed by statute. The Indian civilians hold respectively the portfolios of Land Revenue and Agriculture, the Home, the Finance and the Education Departments. The Law Member has charge of the Legislative Department, and a member with English official experience has charge of the Commerce and Industry Department. The Viceroy acts as his own member in charge of Foreign affairs. Railways are administered by a Board of three members, whose chairman has the status of a Secretary, and are under the general control of the Commerce and Industry Department. The Commander-in-Chief may also be and in practice always is, an "extraordinary" member of the Council. He holds charge of the Army Department. The Governors of Madras, Bombay and Bengal become "extraordinary" members if the Council meets within their Presidencies. The Council may assemble at any place in India which the Governor-General appoints; in practice it meets only in Delhi and Simla.

### **Business Procedure.**

In regard to his own Department each Member of Council is largely in the position of

a Minister of State, and has the final voice in ordinary departmental matters. But any question of special importance, and any matter in which it is proposed to over-rule the views of a Local Government, must ordinarily be referred to the Viceroy. Any matter originating in one department which also affects another must be referred to the latter, and in the event of the Departments not being able to agree, the case is referred to the Viceroy. The Members of Council meet periodically as a Cabinet—ordinarily once a week—to discuss questions which the Viceroy desires to put before them, or which a member who has been over-ruled by the Viceroy has asked to be referred to Council. If there is a difference of opinion in the Council the decision of the majority ordinarily prevails, but the Viceroy can over-rule a majority if he considers that the matter is of such grave importance as to justify such a step. Each departmental office is in the subordinate charge of a Secretary, whose position corresponds very much to that of a permanent Under-Secretary of State in the United Kingdom, but with these differences—that the Secretary is present at Council meetings; that he attends on the Viceroy, usually once a week, and discusses with him all matters of importance arising in his Department; that he has the right of bringing to the Viceroy's special notice any case in which he considers that the Viceroy's concurrence should be obtained to action proposed by the Departmental Member of Council; and that his tenure of office is usually limited to three years. The Secretaries have under them Deputy, Under and Assistant Secretaries, together with the ordinary clerical establishments. The Secretaries and Under-Secretaries are usually members of the Indian Civil Service. The Government of India has no Civil Service of its own as distinct from that of the Provincial Governments, and officers serving under the Government of India are borrowed from the Provinces.

## **Government of India.**

### **VICEROY AND GOVERNOR-GENERAL OF INDIA.**

His Excellency the Right Hon. BARON HARDINGE OF PENSHURST, G.C.B.; G.M.S.I., G.O.M.G., G.M.I.E., G.C.V.O., I.S.O.; *assumed charge of office, 23rd November, 1910.*

### **PERSONAL STAFF OF THE GOVERNOR-GENERAL.**

*Private Secretary*, Sir J. H. Du Boulay, K.C.I.E.

*Military Secretary*, Lieut.-Col. F. A. Maxwell, V.C., C.S.I., D.S.O., 18th Lancers.

*Comptroller of the Household*, Capt. J. Mackenzie, C.I.E., 35th Sikhs.

*Assistant Private Secretary*, J. Scott, C.I.E.

*Aides-de-Camp*, Major Hon. H. J. Fraser, M.V.O., Scots Guards; Capt. Hon. A. O. W. C. Weld-Forester, M.V.O., Grenadier Guards; Lieut. F. A. Nicolson, 15th Hussars; Capt. W. W. Muir, 15th Sikhs (extra); Capt. A. F. Hartley, 11th Lancers (extra); Capt. A. A. Tod, Rifle Brigade (extra).

*Indian Aides-de-Camp*, Abdul Karim Khan Risaldar Major, *Sardar Bahadur*, G. G.'s Body Guard; Mit Singh Subadar Major *Sardar Bahadur*, 63rd Sikhs.

*Surgeon*, Lieut.-Col. Sir J. R. Roberts, C.I.E.

*Commandant of Body Guard*, Capt. V. A. S. Kelghley, M.V.O., 18th Lancers.

*Adjutant of Body Guard*, Lieut. J. R. V. Sherston, 11th Lancers.

Ordinary Members—

• COUNCIL.

Sir R. W. Carlyle, K.C.S.I., C.I.E. Took his seat, 4 July, 1910.  
 Sir S. H. Butler, K.C.S.I., C.I.E. Took his seat, 15 November, 1910.  
 Syed Ali Imam, C.S.I. Took his seat, 21 November, 1910. (Law).  
 W. H. Clark, C.S.I., C.M.G. Took his seat, 24 November, 1910.  
 Sir R. H. Craddock, K.C.S.I. Took his seat, 27 January, 1912.  
 Sir William Meyer, K.C.I.E., Took his seat, 28 June, 1913.

Extraordinary Member—

Gen. Sir O'Moore Creagh, V.C., G.C.B., G.C.S.I., A.D.C. GEN. Commander-in-Chief in India.  
 Took his seat, 10th September, 1909. (To be succeeded by Gen. Sir Beauchamp Duff.)

SECRETARIAT.

REVENUE AND AGRICULTURE DEPARTMENT.

Secretary, Sir E. D. MacLagan, K.C.S.I.  
 Under Secretary, F. Noyce.  
 Inspector-General of Forests, E. S. Hart.  
 Assistant Inspector-General of Forests, G. E. S. Cubitt.

Registrar, J. D. Shapcott.  
 Superintendents, W. A. Threlfall, C. H. Martin,  
 L. E. Kershaw, T. McDonnell.

FINANCE DEPARTMENT.

Ordinary Branch.

Secretary, The Hon. Mr. J. B. Brunyate, C.I.E.  
 I.C.S.  
 Deputy Secretaries, H. G. Stokes, C.I.E.; F. W. Johnston, C.I.E.  
 Under Secretary, E. M. Cook.  
 Assistant Secretary, B. N. Mitra.  
 Registrar, E. W. Baker, I.S.O.  
 Additional Asst. Secretary, H. L. French, I.S.O.  
 Superintendents, M. H. Khan, A. V. V. Alyce,  
 B. A., G. W. C. Bradey, G. T. Piper, C. N. Chakarty, A. Hyde.

Military Finance Branch.

Financial Adviser, W. H. Michael.  
 Military Accountant-General and ex-officio Deputy Financial Adviser, Col. B. W. Marlow, C.I.E., I.A.  
 Deputy Financial Adviser, W. C. Ashmore.  
 Military Deputy Accountant-General and ex-officio Assistant Secretary, Major E. B. Peacock, I.A.  
 Assistant Financial Adviser, Capt. G. W. Ross, I.A.  
 Assistant Controller, G. H. Cockhen.  
 Registrar, W. C. Gleeson.  
 Superintendents, Lieut. T. A. Duffy, G. E. Hodges, Comdr. E. H. Chapman.

FOREIGN DEPARTMENT.

Secretary, Lieut-Col. Sir A. H. McMahon, G.C.V.O., K.C.I.E., C.S.I., I.A.  
 Deputy Secretaries, A. H. Grant, Esq.; C.I.E. and L. W. Reynolds, C.I.E.  
 Under Secretary, H. D. St. John.  
 Assistant Secretary, Major S. B. A. Patterson.  
 Attache, Khan Bahadur Maula Baksh.  
 Registrar, G. W. Marshall, I.S.O.  
 Superintendents, A. Stapleton, I.S.O.; S. A. Blaker, E. L. Nile, T. G. B. Waugh.

HOME DEPARTMENT.

Secretary, H. Wheeler, C.I.E. (offg.).  
 Deputy Secretary, C. W. E. Cotton.  
 Under Secretaries, V. Dawson, H. L. Fox.  
 Registrar, G. F. Winn.  
 Superintendents, J. H. Frost, A. S. Lawrence,  
 Rai Sahib A. C. Koyar, H. C. Marsden, P. K. Basu.

EDUCATION DEPARTMENT.

Secretary, C. L. Porter, C.I.E.  
 Joint Secretary, H. Sharp, C.I.E.  
 Assistant Secretaries, C. D. Ross, Ph.D.; Kunwar Maharaaj Singh

Superintendents, R. H. Blaker, T. M. Smith,  
 P. A. Collins, I. D. Harington.  
 Registrar, G. R. Kaye.  
 Census Commissioner, E. A. Galt, C.I.E.

LEGISLATIVE DEPARTMENT.

Secretary, Sir W. H. H. Vincent.  
 Deputy Secretary, A. P. Muddiman.  
 Legal Asst. to Secretary, Sarat Chandra Panerjee.  
 Registrar, T. W. Payne, I.S.O. (on leave)—S. A. Collins (offg.).  
 Superintendent, G. R. Ridge.

ARMY DEPARTMENT.

Secretary, Major-Gen. Sir M. H. S. Grover.  
 Deputy Secretary, Major A. H. O. Spence.  
 Assistant Secretaries, Lieut.-Col. H. F. Cooke, I.A., Major R. B. Graham, Major A. W. Chitty.  
 Registrar, L. N. Burman, Rai Bahadur (on leave) A. A. Whelan (offg.).  
 Superintendents, W. C. Dobenheim; A. B. Kunning, R. Tharle-Hughes, P. P. Ilypher.

PUBLIC WORKS DEPARTMENT.

Secretary, Irrigation, Roads and Buildings, W. B. Gordon, C.I.E.  
 Deputy Secretary, G. H. le Maistre.  
 Under Secretary, P. Hawkins.  
 Assistant Secretary, J. E. Lacey, I.S.O.  
 Registrar, W. J. Drake.  
 Superintendents, W. J. Tilden, R. R. Reaks, H. M. Marchant, H. N. Dass.  
 Inspector-General of Irrigation, The Hon'ble Mr. M. Netherlandsole.  
 Consulting Architect, J. Begg, F.R.I.B.A.  
 Assistant, E. M. Thomas.  
 Electrical Adviser, J. W. Mearns.

COMMERCE AND INDUSTRY DEPARTMENT.

Secretary, R. E. Enthoven, C.I.E.  
 Under Secretaries, H. A. F. Lindsay, S.H. Slater.  
 Controller of Patents and Designs—H. G. Graves.  
 Registrar, T. O. Drake, I.S.O.  
 Superintendents, E. P. Jones, H. B. W. Charles; A. K. Sarkar, B. D. Banarji, S. N. Banarji, C. H. Baldrey.

RAILWAY BOARD.

President, Sir T. R. Wynn, K.C.S.I.; K.C.I.E.  
 Second Member, W. H. Wood.  
 Temporary Member, Sir H. P. Burt, K.C.I.E.  
 Secretary, T. Ryan.  
 Chief Engineer, J. Woodside.

POST OFFICE & TELEGRAPH DEPT.

Director-General of Posts & Telegraphs, Mr. W. Maxwell, C.I.E.; M.V.O. (offg.).  
 NORTHERN INDIA SALT REVENUE  
 Commissioner, R. A. Gamble.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

Persian Gulf and Persian Sections.  
 Directors, E. E. Gunter; H. W. Smith, C.I.E.; W. King-Wood, C.I.E. (offg.).  
 Commander of Cable Steamer "Patrick Stewart," F. W. Townsend.



## SURVEY DEPARTMENT.

*Surveyor-General of India*, Col. S. G. Burrard, C.S.I., R.E.

## GEOLOGICAL SURVEY.

*Director*, H. H. Hayden, C.I.E., B.A.; F.G.S.;  
*Superintendents*, C. S. Middlemiss, B.A., F.G.S.;  
 E. Vredenburg, B.Sc.; F.G.S., L. L. Fermor,  
 D.S.C.; F.G.S.  
*Chemist*, W. A. K. Christie, B.Sc., Ph.D.

## BOTANICAL SURVEY.

*Director*, Major A. T. Gage, M.B., I.M.S.; *Economic Botanist*, D. Hooper, F.C.S.; *Economic Botanist*, Madras, F. R. Parnell; *Economic Botanist*, Bombay, W. Burns, B.Sc.; *Economic Botanist*, United Provinces, H. M. Leake, M.A., F.L.S.

## ARCHAEOLOGICAL SURVEY.

*Director-General of Archaeology*, J. H. Marshall, M.A.; C.I.E.; *Superintendent, Western Circle*, D. R. Bhandarkar, M.A.; *Superintendents*, Southern Circle, A. Rea; A. H. Longhurst; *Superintendent, Eastern Circle*, D. B. Spooner, Ph.D.; *Superintendents*, Northern Circle, G. Sanderson; H. Hargreaves; *Superintendent*, Burma, C. Duroiselle; *Superintendent*, Frontier Circle, Sir M. A. Stein, K.C.I.E., Ph.D., D.Litt., D.Sc.

## MISCELLANEOUS APPOINTMENTS.

*Director-General, Indian Medical Service*, Surg.-Gen. Sir C. P. Lukis, K.C.S.I., M.D., I.M.S.  
*Sanitary Commissioner with the Government of India*, Major J. C. Robertson, M.B., I.M.S.  
*Deputy Director-General, Indian Medical Service*, Lieut.-Col. B. G. Seton, I.M.S.  
*Statistical Officer, Sanitary and Medical Department*, Major S. P. James, M.D., I.M.S.  
*Director, Central Research Institute, Kasauli*, Major W. F. Harvey, M.A., M.B., D.P.H., I.M.S.  
*Assistants to Director, Central Research Institute, Kasauli*, Capt. E. C. Hodgson, I.M.S.; Bt. Major F. R. Christophers, M.B.; I.M.S.; Hony. Lieut. C. J. Fox.  
*Senior Member, Plague Research Commission*, Major W. G. Liston, C.I.E., M.D., I.M.S.  
*Director, Pasteur Institute of India, Kasauli*, Major W. F. Harvey, M.B., I.M.S. (off.).  
*Asst. Director, Pasteur Institute of India, Kasauli*, Capt. R. Knowles, I.M.S.  
*Superintendent X-ray Institute, Dehra Dun*, Major A. B. Walter, I.M.S.  
*Director, King Institute of Preventive Medicine*, F. M. Gibson, M.B., B.Sc.  
*Asst. Director King Institute of Preventive Medicine*, Capt. W. S. Patton, M.B., I.M.S.  
*Officer in charge, Biological Laboratory, General Hospital, Calcutta*, W. M. Haffkine, C.I.E.  
*Director-General of Indian Observatories*, G. T. Walker, C.S.I., M.A., D. Sc., F.R.S.  
*Imperial Meteorologists*, J. H. Efeld, M.A.; G. C. Simpson, D.Sc.; W. A. Harwood, M.Sc.; Hem Raj.  
*Director, Kodaikanal and Madras Observatories*, J. Evershed.  
*Director, Bombay and Alibagh Observatories*, Bombay, N. A. F. Moos.  
*Secretary, Board of Examiners*, Capt. C. L. Peart, I.A.  
*Officer in Charge of the Records of the Government of India*, E. D. Ross, C.I.E., Ph.D.  
*Librarian, Imperial Library, Calcutta*, J. A. Chapman.  
*Imperial Bacteriologist, Calcutta*, Major J. D. E. Holmes, I.C.V.D., D.Sc.

*Superintendent, Civil Veterinary Department, Sind, Baluchistan and Rajputana*, Major A. S. Trydell, I.C.V.D.

*Physiological Chemist*, P. Hartley, B.Sc.  
*Superintendent of Natural History Section of Indian Museum*, N. Annandale, B.A.; D.Sc.  
*Curator, Industrial Section of Indian Museum*, D. Hooper, F.C.S., F.L.S.  
*Chief Inspector of Mines*, G. F. Adams.  
*Controller of Printing, Stationery and Stamps*, M. J. Cogswell.

*Superintendent of Government Printing*, J. J. Meikle.

*Superintendent of Linguistic Survey*, Sir G. A. Grierson, K.C.I.E. (Bengal Annuitant).

*Chief Inspector of Explosives*, Lieut.-Col. C. A. Muspratt-Williams, R. A.

*Inspectors of Explosives*, Hon. Capt. J. S. Rush; Hon. Major J. W. Turner.

*Administrator-General of Bengal*, H. T. Hyde.  
*Deputy Administrator-General of Bengal*, A. Kinney.

*Director, Criminal Intelligence*, Sir C. R. Cleveland, K.C.I.E.,

*Director-General of Commercial Intelligence*, Frederick Noel-Paton.

*Customs and Excise Chemist*, R. L. Jenks.

## GOVERNORS-GENERAL OF FOET WILLIAM IN BENGAL.

Name.	Assumed charge of office.
Warren Hastings .. ..	1774
Sir John Macpherson, Bart. ..	1785
Earl Cornwallis, K.G. (a) ..	1786
Sir John Shore, Bart. (b) ..	1793
Lieut.-General the Hon. Sir Alured Clarke, K.C.B. (offg.) ..	1798
The Earl of Mornington, P.C. (c) ..	1798
The Marquis Cornwallis, K.G. (2nd time) ..	1805
Sir George H. Barlow, Bart. ..	1805
Lord Minto, P.C. (d) ..	1807
The Earl of Moira, K.G., P.C. (e) ..	1813
John Adam (offg.) ..	1823
Lord Amherst, P.C. (f) ..	1823
William Butterworth Bayley (offg.) ..	1828
Lord William Cavendish Bentinck, G.C.B., G.C.H., P.C. ..	1828
(a) Created Marquess Cornwallis, 15 Aug.; 1792.	
(b) Afterwards (by creation) Baron Teignmouth.	
(c) Created Marquess Wellesley, 2 Dec.; 1790.	
(d) Created Earl of Minto, 24 Feb.; 1813.	
(e) Created Marquess of Hastings, 2 Dec.; 1816.	
(f) Created Earl Amherst, 2 Dec.; 1826.	

## GOVERNORS-GENERAL OF INDIA.

Name.	Assumed charge of office.
Lord William Cavendish Bentinck, G.C.B., G.C.H., P.C. ..	1834
Sir Charles Metcalfe, Bart. (a) (offg.) ..	1835
Lord Auckland, G.C.B., P.C. (b) ..	1836
Lord Ellenborough, P.C. (c) ..	1842
William Wilberforce Bird (offg.) ..	1844
The Right Hon. Sir Henry Hardinge, G.C.B. (d) ..	1844
The Earl of Dalhousie, P.C. (e) ..	1848
Viscount Canning, P.C. (f) ..	1856
(a) Afterwards (by creation) Baron Metcalfe.	
(b) Created Earl of Auckland, 21 Dec.; 1839.	

- (c) Afterwards (by creation) Earl of Ellenborough.  
 (d) Created Viscount Hardinge, 2 May, 1846.  
 (e) Created Marquess of Dalhousie, 25 Aug., 1849.  
 (f) Afterwards (by creation) Earl Canning.  
 NOTE.—The Governor-General ceased to be the direct Head of the Bengal Government from the 1st May, 1854, when the first Lieutenant-Governor assumed office. On 1st April, 1912, Bengal was placed under a separate Governor and the appointment of Lieutenant-Governor was abolished.

VICEROYS AND GOVERNORS-GENERAL OF INDIA.

Name.	Assumed charge of office.
Viscount Canning, P.C. (a)	1858
The Earl of Elgin and Kincardine, K.T., G.C.B., P.C.	1862
Major-General Sir Robert Napier, K.C.B. (b) (offg.)	1863
Colonel Sir William T. Denison, K.C.B. (offg.)	1863
The Right Hon. Sir John Lawrence, Bart., G.C.B., K.C.S.I. (c)	1864
The Earl of Mayo, K.P.	1869
John Strachey (d) (offg.)	1872
Lord Napier of Merchistoun, K. T. (e) (offg.)	1872

- Lord Northbrook, P.C. (f) .. .. 1872  
 Lord Lytton, G.C.B. (g) .. .. 1876  
 The Marquess of Ripon, K.G., P.C. .. 1880  
 The Earl of Dufferin, K.P., G.C.B.; G.C.M.G., P.C. (h) .. .. 1884  
 The Marquess of Lansdowne, G.C.M.G. 1888  
 The Earl of Elgin and Kincardine, P.C. 1894  
 Baron Curzon of Kedleston, P.C. .. 1899  
 Baron Amythill (offg.) .. .. 1904  
 Baron Curzon of Kedleston, P.C. .. 1904  
 The Earl of Minto, K.G., P.C., G.C.M.G. 1905  
 Baron Hardinge of Penshurst, P.C.; G.C.B., G.C.M.G., G.C.V.O., J.S.O. (i) .. 1910  
 (a) Created Earl Canning, 21 May, 1859.  
 (b) Afterwards (by creation) Baron Napier (of Magdala).  
 (c) Afterwards (by creation) Baron Lawrence.  
 (d) Afterwards Sir John Strachey, G.C.S.I.; C.I.E.  
 (e) Afterwards (by creation) Baron Napier of Ettrick.  
 (f) Afterwards (by creation) Earl of Northbrook.  
 (g) Created Earl of Lytton, 28 April, 1880.  
 (h) Created Marquis of Dufferin and Ava, 12 Nov. 1888.  
 (i) During tenure of office, the Viceroy is Grand Master and First and Principal Knight of the two Indian Orders (G.M.S.I., and G.M.I.E.). On quitting office, he becomes G.C.S.I. and G.C.I.E., with the date of his assumption of the Viceroyalty.

## The Imperial Legislative Council.

The constitution of the Executive Council of the Government of India has been sketched; for the purposes of legislation, and to bring the administration into close touch with public opinion, the Executive Council is expanded by additional members into a great legislative assembly. The first step was taken in 1861, when the Indian Councils Act provided that, for the better exercise of the power of making laws and regulations vested in the Governor-General-in-Council, he should nominate "Additional" members for the purposes of legislation only. The additional members were appointed for two years and joined the Council when it met for legislative purposes. The maximum number of members fixed by the Act was twelve, of whom not less than one half were to be non-officials (holding no office under the Government) and in practice most of the non-officials were natives of India. Similar legislative councils were constituted in some of the provinces, but the growth of these bodies will be considered when we come to deal with the provincial administrations.

### The Act of 1892.

In 1892 important additions were made both to the constitution and the powers of the Legislative Council. The number of Additional members was raised to sixteen, and the representative principle was introduced. Whilst the method of appointment was, as before, nomination by the Governor-General, a certain number of nominations were made on the recommendation of specified persons, bodies and associations and in practice these recommendations were never refused. Of the sixteen Additional members, six were usually officials and ten, non-officials. Four of the

non-officials were nominated on the recommendation of the non-official members of the provincial Legislative Councils, the fifth was recommended by the Calcutta Chamber of Commerce, and the remaining five were chosen by the Governor-General, either with a special view to the legislative business to be transacted, or to secure the due representation of all classes. The Council was also empowered to discuss the budget and to ask questions on matters of public interest.

### Morley-Minto Reforms.

The Imperial Legislative Council took its present shape under what is commonly called the Morley-Minto reform scheme of 1909, and was embodied in the Indian Councils Act of that year. Two principles run through this scheme (1) to secure the fair representation of all the varied interests in the country and (2) to give the Council a real influence in determining the character of the administration. The Imperial Legislative Council now consists of sixty Additional members, of whom thirty-five are nominated by the Governor-General and twenty-five are elected by specified electorates. Of the nominated members not more than twenty-eight may be officials, and three others who must not be officials must be nominated by the Muhamedans of the Punjab; the landholders of the Punjab, and the Indian commercial community respectively. The remaining four seats are at the Governor-General's disposal to secure experts on special subjects or representatives of minor interests. Of the twenty-five elected members, eleven are selected by the non-official members of the provincial Legislative Councils, two by each of the four largest provinces and one by each

of the three other provinces. A twelfth is elected by the District and Local Boards of the Central Provinces, as that administration has no legislative council. Six members are elected by electorates of landowners in six provinces, five by the Muhammedan community in each of the five provinces, and two by the Chambers of Commerce in Calcutta and Bombay. The Governor-General-in-Council has the exceptional power of excluding a candidate whose reputation and antecedents are such that his election would be contrary to the public interest. An oath, or affirmation of loyalty to the Crown is required of every member before he takes his seat. Members hold office for three years, and each triennially there is a general election for the Council.

#### Powers of the Council.

The additions to the non-legislative powers of the Council by the Act of 1909 were also substantial. The Council can exercise a material influence on the Budget. The Finance Member first presents the preliminary estimates with an explanatory memorandum. On a subsequent day he makes such further explanations as he thinks necessary. Members can thereupon move resolutions regarding any proposed alteration in taxation, any proposed loan, or any additional grant to Local Governments. When these resolutions are voted upon, the estimates are taken by groups, and resolutions may be moved on any heads of revenue or expenditure. Certain heads, as for instance, Customs and the Army, are excluded from discussion. The Finance Member takes these discussions into consideration, and then presents his final budget. He describes the changes made, and why any resolutions that have been passed have not been accepted. A general discussion of the budget then takes place, but no resolution may be moved, or vote taken. Government is not bound to act upon the resolution of the Council. This power is never likely to be used, because the Government has an official majority on that body. This official majority was specially prescribed by the Secretary of State, because as Parliament is, in the last resort, responsible for the good government of India, the British Government, through its

mouthpiece, the Secretary of State, must have the means of imposing its will on the Government of India.

Apart from the Budget debates, members of Council now have the right to initiate the discussion of any question of public interest at any sitting of the Council by moving a resolution. The right of interpellation has also been expanded by the power of asking supplementary questions in order to elicit a reply given to an original question. The President of the Council may disallow any question which, in his view, cannot be answered consistently with the public interests.

#### Control over Legislation.

The legislative powers of the Imperial Legislative Council are still regulated by the Act of 1861. Certain Acts of Parliament under which the Government of India is constituted cannot be touched and no law can be made affecting the authority of Parliament or allegiance to the Crown. With these exceptions the legislative powers of the Governor-General-in-Council over the whole of the British India are unrestricted. Measures affecting the public debt, or the revenues of India, the religion of any of his Majesty's subjects, the discipline or maintenance of the military or naval forces, and the relations of the Government with foreign states cannot be introduced by any member without the previous sanction of the Governor-General. Every Act requires the Governor-General's assent. The assent of the Crown is not necessary to the validity of an Act, but the Crown can disallow any Act that has been passed.

Apart from these legislative powers the Governor-General-in-Council is authorised to make, without calling in the Additional Members, regulations having the force of law for the less advanced parts of the country, where a system of administration simpler than that in force elsewhere is desirable. In cases of emergency the Governor-General can, on his own authority and without reference to his Council, make Ordinances which have the force of law for six months.

All Members of the Imperial and Provincial Legislative Councils are entitled to the prefix "Hon'ble Mr." during their term of office.

#### A.—Elected Members. (Not to be less than 27.)

Serial No.	Name.	Date of commencement of office.	Date of expiry of term of office.	Electorate.
1	Nawab Saiyid Muhammad Sahib Bahadur.	11-1-13	10-1-16	Non-official Member, Madras.
2	Mr. Chakravarti Vijayaraghavachariar ..	Do.	Do.	Do.
3	Sir Ibrahim Rahimtoola, Kt., C.I.E. ..	Do.	Do.	Bombay.
4	Mr. Gopal Krishna Gokhale, C.I.E. ..	Do.	Do.	Do.
5	Babu Surendra Nath Banerji ..	15-2-13	14-2-16	Bengal.
6	Maharaja Ranajit Sinha of Nashipur ..	Do.	Do.	Do.
7	Rai Sri Ram Bahadur, C.I.E. ..	22-1-13	21-1-16	United Provinces.
8	Pandit Madan Mohan Malaviya ..	Do.	Do.	Do.
9	Sardar Daljit Singh of Jullundur ..	11-1-13	10-1-16	Punjab.
10	Maung Mye ..	28-12-12	27-12-15	Burma.
11	Mr. Madhu Sudan Das, C.I.E. ..	25-1-13	24-1-16	Bihar and Orissa.

A.—ELECTED MEMBERS.—*contd.*

Serial No.	Name.	Date of commencement of office.	Date of expiry of term of office.	Province or body represented.
12	Srijut Ghanasyam Barua .. ..	11-1-13	10-1-16	Non-Official Member, Assam.
13	Rao Bahadur V. R. Pandit, M.A. ..	Do.	Do.	District Councils and Municipal Committees, Central Provinces.
14	Sir P. Rama Rayanimgar Vankataranga Rao Bahadur of Panagallu.	18-1-13	17-1-16	Landholders, Madras.
15	Meherban Sardar Khan Bahadur Rustomji Jehangirji Vakil of Ahmedabad.	7-1-13	6-1-16	Do. Bombay. (Sardars of Gujarat.)
16	Maharaja Manindra Chandra Nandi	22-1-13	21-1-16	Landholders, Bengal.
17	Raja Kushalpal Singh, M.A., LL.B., of Kota.	22-2-13	27-12-15	Do. United Provinces. (Landholders of Agm.)
18	Mamji-Kumar Gopal Saran Narain Singh of Tikari.	28-12-12	27-12-15	Do. Bihar and Orissa.
19	Sir Gangadhar Madho Chitnavis, K.C.I.E.	11-1-13	10-1-16	Do. Central Provinces.
20	Khan Bahadur Mir Asad Ali Khan ..	18-1-13	17-1-16	Muhammadan Community, Madras.
21	Sir Fazulbhoj Currimbhoj Ebrahim ..	11-1-13	10-1-16	Do. Bombay.
22	Mr. Abdul Karim Abu Ahmed Ghaznavi.	22-1-13	21-1-16	Do. Bengal.
23	Raja Sir Muhammad Ali Muhammad Khan, K.C.I.E., Khan Bahadur, of Mahmudabad.	18-1-13	17-1-16	Muhammadan Community, United Provinces.
24	Mr. Qanful Huda, Bar.-at-law .. ..	11-1-13	10-1-16	Do. Bihar and Orissa.
25	Mr. A. M. Monteath .. ..	28-12-12	27-12-15	Bengal Chamber of Commerce.
26	Sir C. H. Armstrong, Kt. .. ..	Do.	Do.	Bombay Chamber of Commerce.
27	Raja Saiyid Abu Jafar of Pirpur ..	18-1-13	17-1-16	Muhammadan Landholders, United Provinces.

B.—Nominated Members,  
(Not to exceed 33.)

Serial No.	Name.	Date of commencement of office.	Date of expiry of term of office.	Province or body represented.
(a) OFFICIAL MEMBERS. Not more than 28.				
1	Mr. R. C. C. Carr .. ..	11-1-13	10-1-16	Madras.
2	Mr. S. R. Arthur .. ..	Do.	Do.	Bombay.
3	Mr. D. J. Macpherson, C.I.E. .. ..	Do.	Do.	Bengal.
4	Mr. W. Maude .. ..	Do.	Do.	Bihar and Orissa.
5	Mr. A. L. Saunders .. ..	Do.	Do.	The United Provinces.
6	Mr. M. W. Fenton .. ..	Do.	Do.	The Punjab.
7	Mr. H. L. Eales, C.S.I. .. ..	Do.	Do.	Burma.
8	Mr. J. Walker, C.I.E. .. ..	Do.	Do.	The Central Provinces.
9	Mr. J. C. Arbuthnott, C.I.E. .. ..	Do.	Do.	Assam.
10	Major Denys Brooke Blakeway, C.I.E. ..	22-1-13	21-1-16	The N.-W. F. Province.
11	Sir Trevellyn R. Wynne, K.C.S.I. K.C.I.E., V.D., M.I.C.E. .. ..	21-1-13	20-1-16	Government of India.
12	Sir E. D. MacLagan, K.C.I.E., C.S.I. ..	Do.	Do.	Do.
13	Mr. L. C. Potter, C.I.E. .. ..	23-12-10	22-12-13	Do.
14	Lt.-Col. Sir A. H. McMahon, G.C.V.O., K.C.I.E., C.S.I. .. ..	21-1-13	20-1-16	Do.
15	Mr. H. Sharp, C.I.E. .. ..	Do.	Do.	Do.
16	Sir W. H. Vincent, Kt. .. ..	Do.	Do.	Do.
17	Mr. B. E. Enthoven, C.I.E. .. ..	Do.	Do.	Do.
18	Mr. H. Wheeler, C.I.E. .. ..	Do.	Do.	Do.

B.—NOMINATED MEMBERS.—*contd.*

Serial No.	Name.	Date of commencement of office.	Date of expiry of term of office.	Province or body represented.
(a) OFFICIAL MEMBERS.— <i>contd.</i>				
19	Mr. W. Maxwell, C.I.E.; M.V.O. .. ..	21-1-13	20-1-16	Government of India.
20	Mr. W. H. Michael .. ..	Do.	Do.	Do.
21	Mr. R. P. Russell .. ..	Do.	Do.	Do.
22	Mr. J. B. Brunsyate .. ..	Do.	Do.	Do.
23	Major-General W. R. Birdwood, C.B.; C.S.I., C.I.E., D.S.O.	Do.	Do.	Do.
24	Surgeon-General A. M. Crofts, C.I.E., A.D.C., I.M.S.	Do.	Do.	Do.
25	Mr. G. H. B. Kenrick, K.C., LL.D. ..	Do.	Do.	Do.
26	Mr. C. H. Kesteven .. ..	21-1-13	20-1-16	Do.
27	Major J. C. Robertson, I.M.S. .. ..	22-2-13	21-2-16	Do.
(b) NON-OFFICIAL MEMBERS.				
(i) Three assigned to particular bodies.				
1	Rai Sitanath Ray Bahadur .. ..	22-1-13	21-1-16	Indian Commercial Community.
2	Malik Umar Hyat Khan, C.I.E., M.V.O.; Tiwana.	11-1-13	10-1-16	Muhammadan Community; Punjab.
3	Hony. Lt.-Col. Raja Jal Chand, C.S.I.; of Lambagraon.	Do.	Do.	Landholders, Punjab.
(ii) Two unassigned.				
4	Mr. J. H. Abbott .. ..	7-2-13	6-2-16	.....
5	Mr. E. B. Meugens .. ..	21-1-13	20-1-16	.....

## Present Constitution of the Council.

## I.—The whole Council.

By the proviso to Regulation I for the Legislative Council of the Governor-General it is declared that it shall not be lawful for the Governor-General to nominate so many non-official persons that the majority of all the Members of the Council shall be non-officials.

## Officials—

(a) Members of the Executive Council .. ..	7
(b) The Lieutenant-Governor or Chief Commissioner of the Province (1) .. ..	1
(c) Nominated Members .. ..	28
Total .. ..	36

## Non-Officials (2)—

(a) Elected Members .. ..	27
(b) Nominated Members .. ..	5
Total .. ..	32

Official majority, exclusive of the Governor-General .. ..	4
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## II.—The Additional Members.

The Indian Councils Act, 1861, section 10, provides that not less than one half of the Additional Members (exclusive of the Lieutenant-Governor or Chief Commissioner of the Province (1) in which the Council may for the time being be assembled) shall be non-officials.

(Present number of Additional Members { Officials (nominated) .. ..	28
exclusive of the Lieutenant-Governor { Non-officials (elected and nominated) .. ..	30
or Chief Commissioner (1) as aforesaid) { Vacancies .. ..	2
Total .. ..	60

## The Home Government.

The Home Government of India represents the gradual evolution of the governing board of the old East India Company. The affairs of the Company were originally managed by the Court of Directors and the General Court of Proprietors. In 1784 Parliament established a Board of Control, with full power and authority to control and direct all operations and concerns relating to the civil and military government, and revenues of India. By degrees the number of the Board was reduced and its powers were exercised by the President, the lineal precursor of the Secretary of State for India. With modifications this system lasted until 1858, when the Mutiny, followed by the assumption of the Government of India by the Crown, demanded a complete change. Under the Act of 1858 the Secretary of State is the constitutional adviser of the Crown on all matters relating to India. He inherits generally all the powers and duties which were formerly vested either in the Board of Control, or in the Company, the Directors and the Secret Committee in respect of the government and revenues of India. He has the power of giving orders to every officer in India, including the Governor-General, and of directing all business relating to India which is transacted in the United Kingdom.

### Secretary of State's Powers.

Of these wide powers and duties many rest on his personal responsibility; others can be performed only in consultation with his Council, and for some of these the concurrence of a majority of the members of his Council is required. The Secretary of State may act without consulting the Council in all matters where he is not expressly required by statute to act as "Secretary of State-in-Council." Appointments by the Crown are made on his advice. Every official communication proposed to be sent to India must be laid before Council, unless it falls under either of two reserved classes. One of these is "Secret communications" dealing chiefly with war and peace, relations with foreign Powers and Native States. The others are those which he may deem "urgent." No matter for which the concurrence of a majority of Council is necessary can be treated as either "secret" or "urgent." In ordinary business, for which the concurrence of a majority of Council is not required, the Secretary of State is not bound to follow the advice of the Council. These provisions reserve to the Secretary of State a wide discretionary power of interference with the Government of India which is exercised in accordance with the temperament of the Secretary of State for the time being. But in all matters of finance, the authority is that of the Secretary of State and the Council and is freely exercised.

### The Council.

The Council of India originally consisted of fifteen members appointed by the Secretary of State. By an Act passed in 1907 it now consists of such number of members, not being less than ten or more than fourteen, as the Secretary of State may from time to time determine. The members hold office for seven years, and this term may, for special reasons of public advantage, which must be laid before

Parliament, be extended for five years more. The majority of the Council must be persons who have served or resided in India for at least ten years, and who have not left India more than five years before their appointment. Most of the members are always men who have held high office in India. Several of them have usually belonged to the Indian Civil Service, and have been Lieutenant-governors of provinces or members of the Viceroy's Executive Council; others are soldiers, educationists, bankers, or men of diplomatic, official, or mercantile experience. The object aimed at in the constitution of the Council is to give the Secretary of State, who has little knowledge of the details of the Indian administration; the help of a body of experts. In 1907, in connection with the policy of constitutional reform, two Indians, one a Hindu and the other a Mahomedan, were appointed to vacancies in the Council. In future this practice will almost certainly be followed.

### The India Office.

Associated with the Secretary of State and the India Council is a secretariat known as the India Office, housed at Whitehall. The Secretary of State has two Under-Secretaries, one permanent, the other parliamentary, to whom some of his minor duties are delegated. Appointments to the establishment are made by the Secretary of State in Council, but "junior situations" must be filled in accordance with the general regulations governing admission to the Home Civil Service.

The whole cost of the India Office is borne by the revenues of India. It amounts to £357,000 a year.

### Secretary of State.

The Most Hon. The Marquess of Crewe, K.G.  
P.C.

### Under Secretaries of State.

Sir Thomas W. Holderness, K.C.S.I.  
The Hon. E. S. Montagu, M.P.

### Assistant Under Secretary of State.

Lionel Abrahams, C.B.

### Council.

*Vice-President*, Sir J. Digges La Touche, K.C.S.I.  
*Deputy*, Lieut.-Col. Sir David W. K. Barr, K.C.S.I.  
Sir Felix O. Schuster, Bart.  
Sir Theodore Morison, K.C.I.E.  
Gen. Sir Charles C. Egerton, G.C.B., D.S.O.  
Sir Krishna Gobinda Gupta, K.C.S.I.  
Sir James Thomson, K.C.S.I.  
Sir Steynning William Edgerley, K.C.V.O.; C.I.E.  
Abbas Ali Baig, C.S.I., LL.D.  
Laurence Currie.  
*Clerk of the Council*, Lionel Abrahams, C.B.  
*Deputy Clerk of the Council*, James H. Seabrooke, C.I.E.  
*Private Secretary to the Secretary of State*, Francis H. Lucas, C.B.  
*Assistant Private Secretary*, J. C. Walton.  
*Assistant Private Secretary (unpaid)*, C. T. Clay.  
*Political A.-D.-C. to the Secretary of State*, Lieut.-Col. Sir J. R. Dunlop-Smith, K.C.S.I.; C.I.E.

*Private Secretary to Sir T. W. Holderness,*  
C. H. Kisch.

*Private Secretary to Hon. E. S. Montagu, M. P.,*  
H. Peel.

*Parliamentary ditto to ditto, Sir Henry S. M.*  
Havelock-Allan, Bart., M. P.

### Correspondence Departments.

#### SECRETARIES.

*Financial, F. W. Newmarch.*

*Judicial and Public, Malcolm C. C. Seton.*

*Military, Gen. Sir Beauchamp Duff, G.C.B.;*  
K.C.S.I., K.O.V.O., C.I.E.

*Political and Secret, Sir F. A. Hirtzel, K.O.B.*

*Public Works, Hermann A. Haines.*

*Revenue and Statistics, Francis C. Drake.*

*Director-in-Chief of the Indo-European Tele-*  
graph, *Public Works Department, R. C. Bar-*  
ker, C.I.E.

#### ACCOUNTANT-GENERAL'S

#### DEPARTMENT:—

*Accountant-General, Walter Badock, C.S.I.,*  
also *Director of Funds and Official Agent to*  
*Administrators-General in India.*

#### STORE-DEPARTMENT—INDIA OFFICE BRANCH:—

*Director-General, Henry J. W. Fry.*

*INDIA STORE DEPOT:—Belvedere Road, Lam-*  
beth, *S. E., Superintendent of the India Store*  
*Depot, Captain G. T. Wingfield, R. N.*

*REGISTRY AND RECORD DEPARTMENT.—Reg-*  
istrar and Superintendent of Records, *W.*  
*Foster, C.I.E.*

### Miscellaneous Appointments.

*Government Director of Railway Companies,*  
*A. Brereton, C.S.I.*

*Librarian, Fredk. W. Thomas, M.A.; Hon. Ph.*  
*D. (Munich).*

*Secretary for Indian Students, C. E. Mallet.*

*Educational Adviser to Indian Students, T. W.*  
*Arnold, C.I.E., M.A. (21, Cromwell Road,*  
*S. W.)*

*Medical Board for the Examination of Officers*  
*of the Indian Services—President, Surg.-Gen.*  
*Lieut.-Col. Sir R. H. Charles, G.C.V.O., M.D.,*  
*I.M.S. (retd.), F.R.C.S.I.; Member, Lt.-Col.*  
*J. Anderson, M.B., I.M.S.*

*Legal Adviser and Solicitor to Secretary of State,*  
*S. G. Sale.*

*Inspector of Military Equipment and Clothing,*  
*Major-Gen. Sir John Stevens, K.C.B.*

*Surveyor and Clerk of the Works, T. H. Winny,*  
*A.R.I.B.A.*

*Ordnance Consulting Officer, Lieut.-Col. M.S.C.*  
*Campbell, C.I.E.; R.A.*

*Assistant Ordnance Consulting Officer, Capt.*  
*N. S. H. Sitwell, R.A.*

*Officers of the Indian Army attached to the General*  
*Staff, War Office, Major A. G. Stuart,*  
*Capt. L. R. Vaughan.*

*Consulting Engineer, Sir A. M. Rendel, K.C.I.E.*

*Stockbroker, Horace Hubert Scott.*

*INDIAN TROOP SERVICE.—The business of the*  
*Troop Service is under the superintendence of*  
*Rear-Admiral Herbert W. Savory, M.V.O.,*  
*Director of Transports at the Admiralty.*

### \*Secretaries of State for India.

Name.	Assumed charge of office.
Lord Stanley, P.C. (a) .. ..	1858
The Right Hon. Sir Charles Wood, Baro. (b) .. ..	1859
Earl de Grey and Ripon, P.C. (c) ..	1866
Viscount Cranborne (d) .. ..	1866
The Right Hon. Sir Stafford North-	
cote, Bart. (e) .. ..	1867
The Duke of Argyll, K.T., P.C. ..	1868
The Marquis of Salisbury, P.C. (2nd time) .. ..	1874
The Right Hon. Gathorne Hardy, P.C., created Viscount Cranbrook, 14 May, 1878 (f) .. ..	1878
The Marquis of Hartington, P.C. (g) ..	1880
The Earl of Kimberley, P.C. .. ..	1882
Lord Randolph Churchill, P.C. .. ..	1885
The Earl of Kimberley, K.G.; P.C. (2nd time) .. ..	1886
The Right Hon. Sir Richard Assheton Cross, G.C.B., P.C., created Viscount Cross, 19 Aug., 1886 .. ..	1886
The Earl of Kimberley, K.G., P.C. (3rd time) .. ..	1892
The Right Hon. H. H. Fowler (h) ..	1894
Lord George F. Hamilton, P.C. ..	1895
The Right Hon. St. John Brodrick (i)	1903
The Right Hon. John Morley, O.M. (j) ..	1905
The Right Hon. The Earl of Crewe, K.G. .. ..	1910
The Right Hon. Viscount Morley of Blackburn, O.M. .. ..	1911
The Right Hon. The Earl of Crewe, K.G. (k) .. ..	1911
(a) Afterwards (by succession) Earl of Derby.	
(b) " (by creation) Viscount Halifax.	
(c) " (by creation) Marquess of Ripon.	
(d) " (by succession) Marquess of Salisbury.	
(e) " (by creation) Earl of Iddesleigh.	
(f) " (by creation) Earl Cranbrook.	
(g) " (by succession) Duke of Devonshire.	
(h) " (by creation) Viscount Wolverhampton, G.C.S.I.	
(i) " (by succession) Viscount Midleton.	
(j) " (by creation) Viscount Morley of Blackburn, O.M.	
(k) " (by creation) Marquess of Crewe, K.G.	

See also Proposed Reform of the India Council.

## The Provincial Governments.

British India is divided into eight large provinces and six lesser charges, each of which is termed a Local Government. The eight major provinces are the Presidencies of Madras, Bombay, and Bengal; the Lieutenant-Governorships of the United Provinces, The Punjab, Burma, and Behar; and the Chief Commissionership of the Central Provinces. The minor provinces are Assam, the North-West Frontier Province, Baluchistan, Coorg, Ajmere Merwara and the Andaman Islands. The original division of British authority in India was between the Presidencies of Bengal, Madras and Bombay. Bengal afterwards developed into and was separated from the Government of India and then was gradually divided into provinces as the tide of conquest brought under administration areas too large to be controlled by a single authority. The status and area of these provinces have been varied from time to time to meet the changed conditions of the day. The most recent of these changes was the separation of the North-West Frontier from the Punjab in 1901; the division of Bengal into two provinces in 1905; and the final adjustment made in accordance with His Majesty the King's announcement at the Durbar of 1911, whereby the newly-created province of Eastern Bengal and Assam disappeared, and Bengal was re-divided into the Presidency of Bengal, the Lieutenant-Governorship of Behar and Orissa, and the Chief Commissionership of Assam, whilst the headquarters of the Government of India were moved from Calcutta to Delhi, and the City of Delhi, with an *enclave* of territory surrounding it, was taken under the direct administration of the Government of India. All Local Governments alike are under the superintendence and control of the Governor-General in Council. They must obey orders received from him, and they must communicate to him their own proceedings. But each Local Government is the Executive head of the administration within the province. By custom, all appointments to Local Governments are for a term of five years.

### The Three Classes.

The three Presidencies occupy a superior position. The Civil administration of each is vested in a Governor-in-Council, appointed by the Crown; and usually drawn from English public life. On certain matters they correspond directly with the Secretary of State, a privilege not possessed by other provincial Governments. The Governors are assisted by a Council composed of three members, two members of the Civil Service and, under the Indian Councils Act of 1909, a fourth member who is usually an Indian. Like the Governor-General they are addressed as Your Excellency, and they are escorted by a body-guard. The maximum salaries as fixed by Act of Parliament are Rs. 120,000 for a Governor and Rs. 64,000 for a member of Council.

Lieutenant-Governors are appointed by the Governor-General subject to the approbation of the Crown. They must have served for at least ten years in India. Under the Indian Councils Act power was taken to create executive councils in the Lieutenant-Governorships and this has been applied to Behar where the Lieutenant-Governor is assisted by a Coun-

cil consisting of two members of the Civil Service and one Indian. Lieutenant-Governors are addressed as Your Honour. Their maximum salary, Rs. 1,00,000, is fixed by Act of Parliament.

Chief Commissioners stand upon a lower footing, being delegates of the Governor-General-in-Council. In theory, a Chief Commissioner administers his province on behalf of the Governor-General-in-Council, who may resume or modify the powers that he has himself conferred. In practice, the powers entrusted to Chief Commissioner of the Central Provinces are as wide as those exercised by a Lieutenant-Governor. The salary of a Chief Commissioner is Rs. 50,000 but in the case of the Central Provinces this was raised to Rs. 62,000 in consideration of the addition of Berar to his Government.

### Provincial Councils.

The changes made in the constitution and non-legislative functions of the Legislative Councils of Madras and Bombay by the Act of 1909 more than doubled the number of members, election by specially constituted electorates was introduced, and powers were given to members to debate and move resolutions on the provincial financial statements, to move resolutions on matters of general public interest, and to ask supplementary questions. A description of the system in Bombay will show how the scheme works. The Bombay Legislative Council is composed of four ex-officio members (the three members of the Executive Council and the Advocate-General) and 44 additional members. Of the additional members the Governor nominates twenty-three (of whom not more than fourteen may be officials) and 21 are elected. The Government is thus without a majority of officials in the Council. Of the elected members, eight are elected by groups of municipalities and the District Boards, four by Mahomedan electorates, and three by electorates of the land-holding classes. The Bombay University, the Bombay Municipal Corporation, the Bombay Chamber of Commerce, the Karachi Chamber of Commerce, and the Mill-owner's Association; and the Indian Commercial Community, each elect one member. The regulations for the formation of electorates, and as to the qualifications and disqualifications of candidates and voters, are similar to those made in the case of the Supreme Council.

The rules for the discussion of the annual financial statement are similar to those applicable to the Supreme Council. The Financial Statement is presented and considered as a whole and then in detail, and resolutions may be moved. The Government is not bound by any resolutions which the Council may pass. Matters of general public interest under the control of Local Governments may be made the subject of resolutions. Laws passed by these Legislative Councils require the sanction of the Governor-General and may be disallowed by the Crown.

In constitution, in functions, and in the system of special electorates, the Legislative Councils in the Lieutenant-Governorships resemble in all the essential particulars the Legislative Council of Bombay.



**The Secretariat.**

Each Local Government works through a Secretariat, which is divided into various departments, each under a Secretary. In addition to the Secretaries, there are special departmental heads such as the Inspectors General of Police, Jails, and Registration; the Director of Public Instruction, the Inspector-General of Civil Hospitals or Surgeon-General, the Sanitary Commissioner and the Superintendent of the Civil Veterinary Department. There are also Chief Engineers for Public Works and Irrigation, who are likewise Secretaries to Government. In nearly all the Provinces except Bombay, the revenue departments are administered, under Government, by a Board of Revenue.

**The District Officer.**

The administrative system is based on the repeated subdivision of territory, each administrative area being in the responsible charge of an officer who is subordinate to the officer next in rank above him. The most important of these units is the District, and India embraces more than 250 Districts, with an average area of 4,430 square miles and an average population of 931,000. In Madras there is no local officer above the head of the District: elsewhere a Commissioner has the supervision of a Division comprising from four to six Districts. The head of a District is styled either the Collector and District Magistrate or the Deputy Commissioner. He is the representative of the Government and embodies the power of the State. He is concerned in the first place with the land and the land revenue. He has also charge of the local administration of the excise, income tax, stamp duty and other sources of revenue. As a Magistrate of the first class, he can imprison for two years and fine up to a thousand rupees. In practice he does not try many criminal cases, although he supervises the work of the other Magistrates in the District.

In addition to these two main departments, the Collector is interested in all matters pertaining to the welfare of the people. In some branches of the administration his functions are, in consequence of the formation of special departments, such as those of Public Works, Forests, Jails, Sanitation, and Education less direct than was formerly the case. But even in matters dealt with by separate departments, his active co-operation and direction in counsel are needed. The Municipal Government of all considerable towns is vested in Municipalities but it is the duty of the Collector to guide and control their working. He is usually the Chairman of the District Board which, with the aid of subsidiary boards, maintains roads, schools and dispensaries, and carries out sanitary improvements in rural areas.

**Other Officers.**

Other important district officers are the Superintendent of Police, who is responsible for the discipline and working of the police force, and the Civil Surgeon, who (except in Bombay) is the head of the medical and sanitary administration. The local organisation of Government Public Works, Forests, Education and other special departments varies in different parts of the country. Each District has its own law officer, styled the Government Pleader.

The Districts are split up into sub-divisions; under Junior Officers of the Indian Civil Service or members of the Provincial Service called Deputy Collectors. In Madras, Bombay and the United Provinces there are smaller sub-district units called taluks or tahsils, administered by tahsildars (Bombay Mamlatdars); with naib tahsildars or mahalkarris. The tahsildar is assisted by subordinate officers, styled revenue inspectors or karfingos and the village officers. The most important of the latter are the headman who collects the revenue, the karnam, karkun or patwari who keeps the village accounts, and the chaskidar or village watchman.

# Administrative Divisions.

Provinces.	No. of Districts.	Area in Square miles.	Population (1911).
Ajmer Merwara .. .. .	2	2,711	501,395
Andamans and Nicobars .. .. .	....	3,143	26,450
Assam .. .. .	12	52,959	6,713,635
Baluchistan .. .. .	6	45,804	414,412
Bengal .. .. .	28	78,412	45,483,077
Bihar and Orissa .. .. .	21	83,205	34,490,084
Bombay (Presidency) .. .. .	26	123,064	19,672,642
Bombay .. .. .	26	75,918	16,113,042
Sind .. .. .	6	47,066	3,513,435
Aden .. .. .	....	80	46,165
Burma .. .. .	41	236,738	12,115,217
Central Provinces and Berar .. .. .	22	100,345	13,916,308
Coorg .. .. .	1	1,582	174,076
Madras .. .. .	21	141,726	41,405,404
North-West Frontier Province (Districts and administered Territories)	5	16,466	2,106,933
Punjab .. .. .	20	97,209	19,974,956
United Provinces of Agra & Oudh .. .. .	43	107,164	47,182,044
Agra .. .. .	36	83,198	34,624,040
Oudh .. .. .	12	23,966	12,558,004
<b>Total British Territory ..</b>	<b>267</b>	<b>1,097,901</b>	<b>244,267,542</b>

States and Agencies.	No. of Districts.	Area in Square miles.	Population (1911).
Baluchistan States .. .. .	....	86,511	306,432
Baroda State .. .. .	....	8,090	2,032,798
Bengal States .. .. .	....	32,773	4,538,161
Bombay States .. .. .	....	65,761	7,411,567
Central India Agency .. .. .	....	78,772	9,356,980
Central Provinces States .. .. .	....	31,188	2,117,002
Eastern Bengal and Assam States .. .. .	....	....	575,835
Hyderabad State .. .. .	....	82,698	13,374,676
Kashmir State .. .. .	....	80,900	3,158,126
Madras States .. .. .	....	9,969	4,811,841
Cochin State .. .. .	....	....	918,110
Travancore State .. .. .	....	....	3,428,975
Mysore State .. .. .	....	29,444	5,806,193
North-West Frontier Province (Agencies and Tribal areas) .. .. .	....	....	1,022,094
Punjab States .. .. .	....	36,532	4,212,794
Rajputana Agency .. .. .	....	127,541	10,530,432
Sikkim .. .. .	....	....	87,920
United Provinces States .. .. .	....	5,079	832,036
<b>Total Native States ..</b>	<b>....</b>	<b>675,287</b>	<b>70,864,995</b>
<b>Grand Total, India ..</b>	<b>....</b>	<b>1,773,188</b>	<b>315,132,587</b>

## The Bombay Presidency.

The Bombay Presidency stretches along the west coast of India, from Sind in the North to Kanara in the South. It embraces, with its feudatories and Aden, an area of 186,923 square miles and a population of 27,084,317. Of this total 65,761 square miles are in Native States, with a population of 7,411,875. Geographically included in the Presidency but under the Government of India is the first class Native State of Baroda, with an area of 8,182 square miles and a population of 2,032,798. The outlying post of Aden is under the jurisdiction of the Bombay Government: it has an area of 80 square miles and a population of 46,165.

The Presidency embraces a wide diversity of soil, climate and people. In the Presidency Proper are the rich plains of Gujarat, watered by the Nerbudda and the Tapi, whose fertility is so marked that it has long been known as the Garden of India. South of Bombay City the province is divided into two sections by the Western Ghats, a range of hills running parallel to the coast. Above Ghats are the Deccan Districts, with a poor soil and an arid climate, south of these come the Karnatic districts. On the sea side of the Ghats is the Konkan, a rice-growing tract, intercepted by creeks which make communication difficult. Then in the far north is Sind, totally different from the Presidency Proper, a land of wide and monotonous desert except where irrigation from the Indus has brought abounding fertility.

### The People.

The population varies as markedly as soil and climate. In Sind Mahomedans predominate. Gujarat has remained true to Hinduism although long under the dominion of powerful Mahomedan kings. Here there is an amplitude of caste divisions, and a people, who although softened by prosperity, are amongst the keenest trading races in the world. The Deccan peasant has been seasoned by adversity; the saying goes that the Deccan expects a famine one year in every three, and gets it; the population is much more homogeneous than in Gujarat, and thirty per cent. are Mahrattas. The Karnatic is the land of the Lingayets, a Hindu reforming sect of the twelfth century, and in the Konkan there is a large proportion of Christians. Four main languages are spoken, Sindhi, Gujarati, Marathi and Kanarese, with Urdu a rough *lingua franca* where English has not penetrated. The main castes and tribes number five hundred.

### Industries.

The principal industry is agriculture, which supports sixty-four per cent. of the population. In Sind the soils are wholly alluvial, and under the influence of irrigation produce yearly increasing crops of wheat and cotton. In Gujarat they are of two classes, the black cotton soil, which yields the famous Broach cottons, the finest in India, and alluvial, which under careful cultivation in Ahmedabad and Kaira makes splendid garden land. The dominant soil characteristic of the Deccan is black soil, which produces cotton, wheat, gram and millet, and in certain tracts rich crops of sugar cane. The Konkan is a rice land, grown under the abundant rains of the submontane regions, and in the south the Dharwar cotton vies with Broach as the best in India. There

are no great perennial rivers suitable for irrigation, and the harvest is largely dependent upon the seasonal rainfall, supplemented by well irrigation. A chain of irrigation works, consisting of canals fed from great reservoirs in the region of unfailing rainfall in the Ghats, is gradually being completed, and this will ultimately make the Deccan immune to serious drought. More than any other part of India the Presidency has been scourged by famine and plague during the past fifteen years. The evils have not been unmixed, for tribulation has made the people more self-reliant, and the rise in the values of all produce, synchronising with a certain development of industry, has induced a considerable rise in the standard of living. The land is held on what is known as the ryotwari tenure, that is to say, each cultivator holds his land direct from Government under a moderate assessment, and as long as he pays this assessment he cannot be dispossessed.

### Manufactures.

Whilst agriculture is the principal industry, others have no inconsiderable place. The mineral wealth of the Presidency is small, and is confined to building stone, salt extracted from the sea, and a little manganese. But the handicrafts are widely distributed. The handloom weavers produce bright-coloured saris, and to a diminishing extent the exquisite kincobs of Ahmedabad and Surat. Bombay silverware has a place of its own, as well as the brass work of Poona and Nasik. But the tendency is to submerge the indigenous handicrafts beneath industry organised on modern lines. Bombay is the great centre in India of the textile trade. This is chiefly found in the headquarter city, Bombay, where the industry embraces 2,925,966 spindles and 45,260 looms and employs 110,033 hands and consumes 3,762,983 cwt. of cotton. This industry is now flourishing, and is steadily rising in efficiency. In lieu of producing immense quantities of low grade yarn and cloth, chiefly for the China market, the Bombay mills now turn out printed and bleached goods of a quality which improves every year, and the principal market is at home. Whilst the industry centres in Bombay City, there are important offshoots at Ahmedabad, Broach and Sholapur. In Ahmedabad there are 927,008 spindles and 16,311 looms; in Sholapur 226,188 spindles and 2,928 looms; and in the Presidency 4,538,710 spindles and 69,121 looms. It is expected that the prosperity of the Bombay trade will be quickened, when a project, now approaching completion, for the substitution of electricity for steam—the electricity to be generated at a hydro-electric station in the Ghats, fifty miles distant—furnishes cheap and efficient power. Its situation on the western-sea-board, in touch at once with the principal markets of India and the markets of the west, has given Bombay an immense sea-borne trade. The older ports, Surat, Broach, Cambay and Mandvi, were famous in the ancient days, and their bold and hardy mariners carried Indian commerce to the Persian Gulf and the coasts of Africa. But the opening of the Suez Canal and the increasing size of ocean steamers have tended to concentrate it in modern ports with deep water anchor-

ages, and the sea-borne trade of the Presidency is now concentrated at Bombay and Karachi, although attempts are being made to develop Mormugao, in Portuguese territory, into an outlet for the trade of the Southern Mahratta Country. The trade of Bombay is valued at 320 crores of rupees; the foreign trade of the port of Bombay at 168½ crores (imports 103 crores, exports 65 crores); Karachi at 39,25 lakhs (imports 14,21, exports 24,70).

### Administration.

The Presidency is administered by a Governor-in-Council. The Governor is appointed by the Crown; and is usually drawn from the ranks of those who have made their mark in English public life. He is assisted by a Council of three members, two of whom are drawn from the Indian Civil Service, and the third in practice is an Indian. Each Member takes special charge of certain departments, and cases where differences of opinion occur, or of special importance, are decided "in Council." All papers relating to public service business reach Government through the Secretariat, divided into five main departments each under a Secretary (a) Revenue and Financial; (b) Political, Judicial, and Special; (c) General, Educational, Marine and Ecclesiastical; (d) Ordinary Public Works; (e) Irrigation. The senior of the three Civilian Secretaries is entitled the Chief Secretary. The Government frequently moves. It is in Bombay from November to the end of March; at Mahabeshwar from April to June; in Poona from June to September; and at Mahabeshwar from October to November; but the Secretariat is always in Bombay. Under the Governor-in-Council the Presidency is administered by four Commissioners. The Commissioner in Sind has considerable independent powers. In the Presidency Proper there are Commissioners for the Northern Division, with headquarters at Ahmedabad; the Central Division at Poona; and the Southern Division at Belgaum. Each district is under a Collector, usually a Covenanted Civilian, who has under him one or more Civilians as Assistant Collectors, and one or more Deputy Collectors. A collectorate contains on an average from eight to ten talukas, each consisting of from one to two hundred villages whose whole revenues belong to the State. The village officers are the patel, who is the head of the village both for revenue and police purpose; the talati or kulkarni, clerk and accountant; the messenger and the watchman. Over each Taluka or group of village is the mamlatdar, who is also a subordinate magistrate. The charge of the Assistant or Deputy Collector contains three or four talukas. The Collector and Magistrate is over the whole District. The Commissioners exercise general control over the Districts in their Divisions. The control of the Government over the Native States of the Presidency is exercised through Political Agents.

### Justice.

The administration of justice is entrusted to the High Court sitting in Bombay, and comprising a Chief Justice, who is a barrister, and six puisne judges, either Civilian, Barristers, or Indian lawyers. In Sind the Court of the Judicial Commissioner (three

judges, one of whom must be a barrister) is the highest court of civil and criminal appeal. Of the lower civil courts the court of the first instance is that of the Subordinate Judge, recruited from the ranks of the local lawyers. The Court of first appeal is that of the District or Assistant Judge, or of a first class subordinate judge with special powers. District and Assistant Judges are Indian Civilian, or members of the Provincial Service. In cases exceeding Rs. 5,000 in value an appeal from the decision of the Subordinate or Assistant Judge and from the decision of the District Judge in all original suits lies to the High Court. District and Assistant Judges exercise criminal jurisdiction throughout the Presidency, but original criminal work is chiefly disposed of by the Executive District Officers. Capital sentences are subject to confirmation by the High Court. In some of the principal cities Special Magistrates exercise summary jurisdiction (Bombay has four Presidency Magistrates, as well as Honorary Magistrates exercising the functions of English Justices of the Peace) and a Court of Small Causes, corresponding to the English Country Courts.

### Local Government.

Local control over certain branches of the administration is secured by the constitution of local boards and municipalities, the former exercising authority over a District or a Taluka, and the latter over a city or town. These bodies are composed of members either nominated by Government or elected by the people, who are empowered to expend the funds at their disposal on education, sanitation, the construction of roads and tanks, and general improvements. Their funds are derived from cesses on the land revenue, the toll and ferry funds. The tendency of recent years has been to increase the elective and reduce the nominated element, to allow these bodies to elect their own chairmen, whilst large grants have been made from the general revenues for water supply and drainage.

### Finance.

The finance of the provincial governments is marked by definite steps toward provincial financial autonomy. Up to 1870 there was one common purse for all India. Since then progressive steps have been taken to increase the independence of local Governments. Broadly, certain heads of revenue are divided with the Imperial Government, whilst certain growing heads of revenue, varying in each province, are allotted to the local Government. Thus in Bombay the land revenue, stamp revenue and revenue from assessed taxes are divided with the Government of India. All other local sources of revenue go intact to the local Government. The provincial Budget for 1913-14 shows an opening balance of Rs. 168 lakhs, revenue 737 lakhs, expenditure 783 lakhs and the closing balance Rs. 122 lakhs. These large balances are due to grants from the Imperial Governments for non-recurring expenditure.

### Public Works.

The Public Works Department is under the control of two Chief Engineers who act as Secretaries to the Government; one for General Works and the other for Irrigation.

Under them are Superintending Engineers in charge of divisions and Executive Engineers in charge of districts, with the Consulting Architect. The chief irrigation works are in Sind and consist of a chain of canals fed by the annual inundations from the Indus and one perennial canal the Jamrao. In the Presidency proper the principal protective works are the Nera Canal, Gokak Canal, Mutha Canal and a large number of tanks. In addition there is under construction a chain of protective irrigation works, originating in reservoirs in the Ghat regions. The first of these the Godavari Scheme, it is now in operation, the Pravara Scheme is in progress and the Nira Scheme has recently been sanctioned. The Public Works budget for the current year is 80 lakhs of rupees.

### Police.

The Police Force is divided into three categories: District Police, Railway Police and the Bombay City Police. The District Police are under the Inspector-General who is either a member of the Gazetted Force or a Covenanted Civilian. Under him are the Deputy Inspector-Generals for Sind and the Northern and Southern Ranges of the Presidency proper, for Railways and for Criminal Investigation. District Superintendents of Police have charge of each District with a regular cadre comprising Assistant Superintendents, Sub-Inspectors, Chief Constables and Constables. The Bombay City Police is a separate force maintained by Government under a Commissioner who is responsible direct to Government. The Training School at Nasik prepares young gazetted officers and the rank and file for their duties. The cost of the Police is 101 lakhs.

### Education.

Education is imparted partly through direct Government agency, partly through the medium of grants-in-aid. Government maintain Arts Colleges at Bombay, Poona and Gujarat; the Grant Medical College, the Poona College of Science, the Agricultural College, Veterinary College, School of Art and Law School. A Science College and a College of Commerce in Bombay are now in course of construction. Also in Bombay City, and the headquarters of each district, a model secondary school. The other secondary schools are in private hands; the majority of the primary schools are maintained by District and Local Boards with a grant-in-aid. The Bombay Municipality is responsible for primary education in Bombay City. There are now in the Presidency 15 Arts Colleges, 516 Secondary Schools; 12,763 Primary schools; 85 Schools for Special Instructions; 3,032 Private Institutions, with 918,000 scholars. The Government Educational Budget is 105 lakhs.

The Educational Department is administered by a Director, with an Inspector in each Division and a Deputy Inspector with Assistants in each district. Higher education is controlled by the Bombay University (established in 1857) consisting of the Chancellor (the Governor of the Presidency), the Vice-Chancellor (appointed by Government for two years), and 110 Fellows of whom 10 are *ex-officio*, and 10 elected by the Graduates, 10 by the Faculties,

and 89 are nominated by the Chancellor.

The principal educational institutions are:—  
*Government Arts Colleges*—

Elphinstone College, Bombay; Principal Wilkinson.

Deccan College, Poona, Principal J. Bain.

Gujarat College, Ahmedabad, Principal the Rev. W. G. Robertson.

*Private Arts Colleges*—

St. Xaviers, Bombay (Society of Jesus); Principal Rev. Father Sierp.

Wilson College, Bombay, (Scottish Mission), Principal Rev. Dr. Mackichan.

Ferguson College, Poona (Deccan Educational Society), Principal the Hon'ble Mr. R. P. Patanjpe.

Baroda College, Baroda (Baroda State); Principal Professor Clarke.

Samaldas College, Bhavnagar (Bhavnagar State), Principal Professor Unwalla.

Bahauddinbhai College, Junagadh State; Principal Professor Scott.

*Special Colleges*—

Grant Medical College, Bombay (Government), Principal Lt.-Col. Street, I.M.S.

College of Science, Poona (Government); Principal Dr. Allen.

Agricultural College, Poona (Government); Principal Dr. Harold Mann.

Chiefs' College, Rajkot, Principal Professor Mayne.

College of Science, Ahmedabad.

Law School, Bombay.

Veterinary College, Bombay, K. Hewlett.

Bombay Bacteriological Laboratory, Director Major Liston, I.M.S.

Sir J. J. School of Art, Bombay (Government), Principal Mr. Cecil Burns.

Victoria Technical Institute, Bombay, Principal Mr. T. Dawson.

### Medical.

The Medical Department is in charge of the Surgeon-General and Sanitation of the Sanitary Commissioner, both members of the Indian Medical Service. Civil Surgeons stationed at each district headquarters are responsible for the medical work of the district, whilst sanitation is entrusted to one of the Deputy Sanitary Commissioners. Three large hospitals are maintained by the Government in Bombay, and well-equipped hospitals exist in all important up-country stations. Over four million persons including 67,000 in-patients are treated annually. The Presidency contains 7 Lunatic Asylums and 16 institutions for the treatment of Lepers. Vaccination is carried out by a staff under the direction of the Sanitary Commissioner. Sanitary work has received an immense stimulus from the large grants made by the Government of India out of the opium surpluses.

*Governor and President in Council.*

His Excellency The Right Hon'ble Freeman Freeman-Thomas Baron Willingdon of Ratton, G.C.I.E. Took his seat 5th April 1913.

*Personal Staff.*

R. E. Gibson, I.C.S., J.P., *Private Secy.*  
Major J. G. Greig, C.I.E., *121st Pioneers; Military Secy.*

Capt. T. C. Lucas, *Surgeon to H. E. the Governor.*

Capt. G. E. Vaughan, *The Coldstream Guards, Aide-de-Camp.*

Capt. K. O. Goldie, 10th Duke of Cambridge's Own Lancers (Hodson's Horse), *Aide-de-Camp*.

Lieut. E. B. Egerton, 17th (Duke of Cambridge's Own) Lancers, *Extra Aide-de-Camp*.

Lieut. Lord A. St. C. Sutherland-Leveson-Gower, The Royal Horse Guards, *Extra Aide-de-Camp*.

Capt. Vere Arthur Coaker, 3rd Skinner's Horse, *Commandant, H. E. the Governor's Body Guard*.

Lieut. Arthur Henry Maitland Wilson, 12th Cavalry, *Adjutant, H. E. the Governor's Body Guard*.

Subedar-Major Sher Muhammad Khan, 121st Pioneers, *Indian Aide-de-Camp*.

*Members of Council.*

Sir R. A. Lamb, K.C.S.I., C.I.E.; I.C.S.  
Mr. M. B. Chaulai, C.S.I., B.A.; LL.B.,  
(On deputation.)

Mr. C. H. A. Hill, C.S.I., C.I.E.; I.C.S.  
Mr. Prabhaskar D. Pattani, C.I.E., Member  
of Council.

*Additional Members of Council.  
Elected.*

Moulvie Rafiuddin Ahmad, Bar-at-Law.  
Elected by the Muhammadan Community  
of the Central Division.

Mr. D. V. Belvi, B.A., LL.B. Elected by the  
Municipalities of the Southern Division.

Mr. G. M. Bhurgri, Bar-at-Law. Elected by  
the Jaghirdars and Zamindars of Sind.

Mr. F. M. Chinoy. Elected by the Muhammadan  
Community of the City of Bombay.

Sardar Syed Ali El Edroos. Elected by the  
Muhammadan Community of the Northern  
Division.

Mr. K. R. Godbole. Elected by the District  
Local Boards of the Central Division.

Shaikh G. H. Hidayatallah, LL.B. Elected by  
the District Local Boards of the Sind Division.

Sardar Sir Chinubhai Madhavlal, Bart., C.I.E.  
Elected by the Millowners' Association of  
Ahmedabad.

Sir Pherozshah M. Mehta, K.C.I.E., M.A., Bar-  
at-Law. Elected by the Municipal Corpora-  
tion of the City of Bombay.

Mr. G. K. Parekh, B.A., LL.B. Elected by the  
Municipalities of the Northern Division.

Mr. V. J. Patel, Bar-at-Law. Elected by the  
District Local Boards of the Northern Division.

Sardar B. A. Saheb Patwardhan, Chief of Ku-  
rundwad (Senior). Elected by the Sardars  
of the Deccan.

Mr. Abdul Hussein Adamji Peerbhoy. Elected  
by the Muhammadan Community of the  
Southern Division.

Sardar Dulabawa Raisingji, Thakor of Kerwada.  
Elected by the Sardars of Gujarat.

Mr. Manmohandas Ramji. Elected by the  
Indian Commercial Community.

Mr. W. L. Graham. Elected by the Bombay  
Chamber of Commerce.

Rao Bahadur S. K. Rodda. Elected by the  
District Local Boards of the Southern Divi-  
sion.

Mr. C. H. Setalvad, B.A., LL.B. Elected by the  
University of Bombay.

Mr. S. B. Upasani. Elected by the Muni-  
cipalities of the Central Division.

Mr. Harchandral Vishandas, B.A., LL.B. Elected  
by the Municipalities of the Sind Division.

Mr. William Underwood Nicholas.  
*Nominated.*

The Advocate General (*ex officio*).

Mr. R. P. Barrow, I.C.S.

Mr. George Carmichael, C.S.I., I.C.S.

Mr. J. E. C. Jukes.

Dr. Dominick Anthony D'Monte.

Mr. R. W. L. Dunlop, C.I.E.

Sir Jamsetjee Jeejeebhoy, Bart.

Mr. B. S. Kamat.

Mr. N. D. Khandalavala, LL.B.

Mr. J. H. Kothari.

Mr. J. A. D. McBain.

Mr. Lalubhai Samaldas Mehta.

Rao Saheb V. S. Naik.

Rao Bahadur R. M. Nilkantha, LL.B.

Mr. R. P. Pranjpe.

Mr. J. P. Crystal.

Sir Ibrahim Rahimtoola, Kt., C.I.E.

Rao Bahadur G. K. Sathe.

Mr. W. H. Sharp.

Mr. J. P. Orr.

Mr. F. L. Spott.

Surgeon-General H. W. Stevenson, C.S.I.

Mr. W. D. Sheppard.

SECRETARIES TO GOVERNMENT.

*Political, Special and Judicial.*—C. C. Watson;  
C.I.E., I.C.S.

*Revenue, Financial and Separate.*—The Hon'ble  
Mr. George Carmichael, C.S.I.

*General, Educational Marine and Ecclesiastical.*—J. L. Rieu, I.C.S.

*Legal Department and Remembrancer of Legal  
Affairs.*—Philip Edward Percival.

*Public Works Department.*—H. F. Beale, and  
Lt.-Col. W. V. Scudamore, R.E. (*Joint  
Secretary.*)

*Inspector-General of Police.*—Michael Kennedy;  
C.S.I.

*Director of Public Instruction.*—The Hon'ble  
Mr. W. H. Sharp.

*Surgeon-General.*—The Hon'ble Surgeon-Gen-  
eral H. W. Stevenson, C.S.I., I.M.S.

*Commissioner in Sind.* W. H. Lucas, C.S.I.;  
I.C.S.

MISCELLANEOUS APPOINTMENTS (S. C.)

*Advocate-General.* The Hon. Mr. T. J. Strang-  
man.

*Inspector-General of Police.* Michael Kennedy  
C.S.I.

*Director of Public Instruction.* The Hon. Mr.  
W. H. Sharp.

*Surgeon-General.* The Hon. Surgeon-General  
H. W. Stevenson, C.S.I.

*Oriental Translator.* Sorab Maneckshah Bharucha.

*Talukdari Settlement Officer.* J. H. E. Tupper.

*Settlement Commissioner and Director of Land  
Records.* F. G. Pratt.

*Director of Agriculture and Co-operative Credit  
Societies.* G. F. Keatinge.

*Registrar of Co-operative Credit Societies.* C. S.  
Campbell.

*Municipal Commissioner, Bombay.* P. R. Cadell;  
C.I.E.

*Vice-Chancellor, Bombay University.* J. J.  
Heaton.

*Registrar, Bombay University.* Fardunji Dastur.

*Commissioner of Police, Bombay.* S. M. Ed-  
wards, C.V.O.

*Sanitary Commissioner.* Lt.-Col. T. E. Dyson;  
I.M.S.

<i>Accountant-General</i> , A. Montagu Brigstocke.		<i>George Brown (Officiating)</i> .. .. .	1811
<i>Inspector-General of Prisons</i> , Lt.-Col. Jackson, I.M.S.		Sir Evan Nepean, Bart. .. .. .	1812
<i>Postmaster-General</i> , A. E. Doran, C.I.E. II. A. Sams, (Officiating).		The Hon. Mountstuart Elphinstone .. .. .	1819
<i>Commissioner of Customs, Salt, Opium and Excise</i> , H. O. Quin.		Major-General Sir John Malcolm, G.C.B.	1827
<i>Collector of Customs, Bombay</i> , R. F. L. Whitty.		Lieut.-General Sir Thomas Sidney Beckwith, K.C.B.	1830
<i>Consulting Architect</i> , G. W. Wittet.		Died, 15th January, 1831.	
GOVERNORS OF BOMBAY.		John Bomer (Officiating) .. .. .	1831
Sir Abraham Shipman .. .. .	1662	The Earl of Clare .. .. .	1831
Died on the island of Anjediva in October	1664	Sir Robert Grant, G.C.H. .. .. .	1835
Humfrey Cooke .. .. .	1665	Died, 9th July, 1838.	
Sir Gervase Lucas .. .. .	1666	James Farish (Officiating) .. .. .	1838
Died 21st May, 1667.		Sir J. Rivett-Carnac, Bart. .. .. .	1839
Captain Henry Garey (Officiating) .. .. .	1667	Sir William Hay Macnaghten, Bart. (b) .. .. .	1841
Sir George Oxenden .. .. .	1668	George William Anderson (Officiating) .. .. .	1841
Died in Surat, 14th July, 1669.		Sir George Arthur, Bart., K.C.H. .. .. .	1842
Gerald Aungier .. .. .	1669	Lestock Robert Reid (Officiating) .. .. .	1846
Died in Surat, 30th June, 1677.		George Russell Clerk .. .. .	1847
Thomas Rolt .. .. .	1677	Viseount Falkland .. .. .	1848
Sir John Child, Bart. .. .. .	1681	Lord Elphinstone, G.C.H., P.C. .. .. .	1853
Bartholomew Harris .. .. .	1690	Sir George Russell Clerk, K.C.B. (2nd time)	1860
Died in Surat, 10th May, 1694.		Sir Henry Bartle Edward Frere, K.C.B.	1862
Daniel Annesley (Officiating) .. .. .	1694	The Right Hon. William Robert Seymour Vesey FitzGerald.	1867
Sir John Gayer .. .. .	1694	Sir Philip Edmond Wodehouse, K.C.B. .. .. .	1872
Sir Nicholas Waite .. .. .	1704	Sir Richard Temple, Bart., K.C.S.I. .. .. .	1877
William Aislabie .. .. .	1708	Lionel Robert Ashburner, C.S.I. (Acting) .. .. .	1880
Stephen Strutt (Officiating) .. .. .	1715	The Right Hon. Sir James Fergusson, Bart., K.C.M.G.	1880
Charles Boone .. .. .	1715	James Braithwaite Peile, C.S.I. (Acting) .. .. .	1885
William Phipps .. .. .	1722	Baron Reay .. .. .	1885
Robert Cowan .. .. .	1729	Baron Harris .. .. .	1890
Dismissed.		Herbert Mills Birdwood, C.S.I. (Acting) .. .. .	1895
John Horne .. .. .	1734	Baron Sandhurst .. .. .	1895
Stephen Law .. .. .	1739	Baron Northcote, C.B. .. .. .	1900
John Geekie (Officiating) .. .. .	1742	Sir James Monteat, K.C.S.I. (Acting) .. .. .	1903
William Wake .. .. .	1742	Baron Lamington, G.C.M.G., G.C.I.E. .. .. .	1903
Richard Bouchier .. .. .	1750	J. W. P. Muir-Mackenzie, C.S.I. (Acting) .. .. .	1907
Charles Crommelin .. .. .	1760	Sir George Sydenham Clarke, G.C.M.G., G.C.I.E. (c).	1907
Thomas Hodges .. .. .	1767	Baron Willingdon, G.C.I.E. .. .. .	1913
Died, 23rd February, 1771.		(a) Proceeded to Madras on duty in Aug., 1793, and then joined the Council of the Governor-General as Commander-in-Chief in India on the 28th Oct., 1793.	
William Hornby .. .. .	1771	(b) Was appointed Governor of Bombay by the Honourable the Court of Directors on the 4th Aug., 1841, but before he could take charge of his appointment, he was assassinated in Cabul on the 23rd Dec., 1841.	
Rawson Hart Boddam .. .. .	1784	(c) Afterwards (by creation) Baron Sydenham.	
Rawson Hart Boddam .. .. .	1785		
Andrew Ramsay (Officiating) .. .. .	1788		
Major-General William Meadows .. .. .	1788		
Colonel Robert Abercromby (a) .. .. .	1790		
George Dick (Officiating) .. .. .	1792		
John Griffith (Officiating) .. .. .	1795		
Jonathan Duncan .. .. .	1795		
Died, 11th August, 1811.			

## The Madras Presidency.

The Madras Presidency, officially the Presidency of Fort St. George, together with the Native States, occupies the whole southern portion of the peninsula, and, excluding the Native States, has an area of 141,075 square miles. It has on the east, on the Bay of Bengal, a coastline of about 1,200 miles; on the west, on the Indian Ocean, a coast-line of about 450 miles. In all this extent of coast, however, there is not a single natural harbour of any importance; the ports, with the exception of Madras, which has an artificial harbour, are merely open roadsteads. A plateau, varying in height above sea-level from about 1,000 to about 3,000 ft., and stretching northwards from the Nilgiri Hills, occupies the central area of the Presidency; on either side are the Eastern and the Western Ghats, which meet in the Nilgiris. The height of the

western mountain-chain has an important effect on the rainfall. Where the chain is high, the intercepted rain-clouds give a heavy fall, which may amount to 150 inches, on the seaward side, but comparatively little rain falls on the landward side of the range. Where the chain is low, rain-clouds are not checked in their westward course. In the central tableland and on the east coast the rainfall is small and the heat in summer excessive. The rivers, which flow from west to east, in their earlier course drain rather than irrigate the country; but the deltas of the Godavari, Krishna and Cauvery are productive of fair crops even in time of drought and are the only portions of the east coast where agriculture is not dependent on a rainfall rarely exceeding 40 inches and apt to be untimely.

### Population.

The population of the Presidency in 1911 was 41,402,000 and that of the Native States was 4,813,000. Hindus account for 89 per cent., Mahomedans for 6, Christians for 3, and Animists for 2. The vast majority of the population is of Dravidian race, and the principal Dravidian languages, Tamil and Telugu, are spoken by 15 and 14 million persons, respectively. Of every 1,000 people, 407 speak Tamil, 377 speak Telugu, 74 Malayalam, 37 Canarese and 23 Hindustani. It is remarkable that of the 41 millions of population all but quarter of a million belong to it by birth.

### Agriculture.

Over 70 per cent. of the population is occupied in agriculture, 48 per cent. having a direct interest as landowners or tenants. About 80 per cent. of the cultivated area is under food crops, the principal being rice (10·7 million acres, Madras coming next to Bengal as a producer of rice), *Cholum* or great millet (5·2 million acres), spiked millet (nearly 4 million acres) and *ragi* (millet). Practically no wheat or barley is grown in the Presidency. About 2½ million acres are under oil-seeds. About 2½ million acres are under cotton, about 17,000 acres are under tea and about 50,000 acres are under coffee, in the production of which last Madras has no Indian rival. Irrigation is unnecessary on the west coast, but on the east about 30 per cent. of the cultivated area has ordinarily to be irrigated. Irrigation works include 33,000 tanks and reservoirs and 7,000 channels. The recent progress of the application of machinery to irrigation on a small scale has been remarkable.

### Industries.

Comparative poverty in readily exploitable mineral wealth and the difficulty of coal supply prohibit very large industrial development in the Presidency, but excellent work, both in reviving decadent industries and testing new ones, has been done under Government auspices. The only indigenous art employing a considerable number of workers is weaving. There are 903 factories with over 26,000 steam engines. Of these, 110 factories are concerned with cotton.

### Trade.

The grand total of the Presidency's sea-borne trade is Rs. 54,99,88,000; the average for the five years ending 1909-10 was Rs. 42,59,24,000. The latest figures give total imports of the value of Rs. 13,58,12,420 and total exports of the value of Rs. 25,32,01,645. The chief head under imports is articles wholly or partly manufactured (Rs. 1,038 lakhs), the largest item being cotton manufactures (Rs. 3,29,84,000). The chief head under exports is raw produce and articles mainly unmanufactured (Rs. 1,091 lakhs), the biggest items being seeds (Rs. 4,69,29,000), cotton (Rs. 4,07,52,000), leather (Rs. 3,75,99,000), grain and pulse, coffee, tea. About 60 per cent. of the Presidency's trade is with the British Empire and about 40 per cent. with the United Kingdom. The port of Madras has 40 per cent. of the Presidency's sea-borne trade.

### Education.

The literate population numbers 3,130,000. In every 1,000, 138 men and 13 women can read and write. Of every 1,000 persons, 6 are literate in English, but the total number of women literate in English is only 4,000. There were in 1910-11 thirty Arts Colleges, 5 Professional Colleges, 558 Secondary Schools and 23,426 Primary Schools for males; for females there were 1 Arts College, 248 Secondary Schools and 9,000 Primary Schools. In addition to these, all of which were public institutions, there were 366 advanced and 4,774 elementary private institutions for male scholars and about 150 for females. The total number of scholars in educational institutions of all kinds was 1,215,725, including 3,741 students in Arts Colleges, 890 in Professional Colleges, 152,413 in Secondary Schools and 922,911 in Primary Schools. The Madras University produces each year about 600 graduates in Arts.

### Government.

The Madras Presidency is governed on a system generally similar to that obtaining in Bombay and Bengal. At the head is the Governor, usually selected from the ranks of British public men or of ex-Governors of Colonies; with the Governor is associated an Executive Council of three members, two of whom must have served for ten years under the Crown in India, while the third, of whom official experience is not required, is in practice, but not of necessity, an Indian. Madras administration differs, however, in some important respects from that of other major Provinces. There is no intermediate local authority between the Collector of the District and the authorities at headquarters, the Commissioner being unknown in Madras. Part of the power which would be reserved elsewhere for the Commissioner is given to the Collector, whose status is rather higher in Madras than elsewhere, and part is exercised by the Board of Revenue. Each member of the Board of Revenue is in fact a Commissioner for specific subjects throughout the Presidency. This conduces to administration by specialists and to the maintenance of equal progress in specific matters in every part of the Presidency, but it leaves the Government without an official who can judge of the general administration of large parts of the country. For these and other reasons the Decentralisation Commission has recommended that a system of Commissionerships be introduced in Madras.

### Finance.

The revenues of the Presidency according to the revised estimates, 1912-13, amounted to Rs. 805·8 lakhs, derived mainly from land revenue (Rs. 344 lakhs) and excise (Rs. 165·5 lakhs). The last figure is unprecedentedly large. The expenditure amounted to Rs. 762·1 lakhs, the main heads being land revenue administration (Rs. 142·9 lakhs), education (Rs. 65·6 lakhs), police (Rs. 87·3 lakhs), "civil works, civil" (Rs. 85·8 lakhs), "civil works, public works department" (Rs. 68·3 lakhs), courts of law (Rs. 66 lakhs), medical (Rs. 19·8 lakhs).

The impression conveyed by considerable surpluses is misleading. Madras has been living



to a great extent on windfalls in the form of grants from the Government of India and a good deal of technically non-recurring expenditure is in fact recurring. The excess of recurring revenue over recurring expenditure is thus largely illusory.

#### Governor and President-in-Council.

His Excellency the Rt. Hon. Baron Pentland, G.C.I.E., P.O. Took his seat 30th October, 1912.

#### Personal Staff.

Private Sec.; C. B. Cotterell.

Military Sec., Capt. C. J. L. Allanson, 6th Goorka Rifles.

Aides-de-Camp, Capt. J. A. Butchart, R. F. A., Capt. H. Colmore, 6th Dragoons.

Extra Aides-de-Camp, Lieut. R. H. V. Cavenish, M.V.O.

Honorary Aides-de-Camp, Col. F. D. Bird, V.D., Comdr. W. B. Huddleston, R. I. M.

Native Aide-de-Camp, Risaldar Hari Singh, Surgeon, Major F. F. Elwes, C.I.E., M.B., I.M.S.

Commandant of Body Guard, Capt. C. Jarvis, 20th Deccan Horse.

Adjutant of Body Guard, Lieut. F. Oswald, 20th Deccan Horse.

#### Members of Council.

Sir J. N. Atkinson, K.C.S.I.

P. S. Aiyar Sivaswami Aiyar, C.S.I.; C.I.E.

Sir H. A. Stuart, K.C.V.O., C.S.I., (tempy).

#### Additional Members of Council.

Elected.

Dr. T. M. Nair.

T. V. Seshagiri Aiyar.

B. N. Sarma.

M. Ramachandra Rao Pantulu.

A. Subba Krishna Rao Pantulu.

Pattu Kesava Pillai.

A. Subbarayulu Reddiyar.

V. V. Aiyar Narasinha Aiyar.

K. P. Raman Menon.

V. K. Aiyangar Ramanujachariyar.

Krishnaswami Rama Aiyangar.

K. R. Venkata Krishna Rao Pantulu.

The Zamindar of Doddappanayakkanur.

C. V. Surya Narasinha Raju.

K. Chidambaramanatha Mudaliyar.

V. Kunhiraman Nayanar.

T. Zain-ul-abidin Sahib Shifa-ul-Mulk.

Ahmed Tambi Ghulam Muhiuddin Marakkayar.

A. D. Jackson.

R. M. Savage.

E. F. Barber.

#### Nominated.

The Advocate-General.

A. G. Cardew, C.S.I.

L. M. Wynch, C.I.E.

L. Davidson, C.S.I.

C. A. Smith, C.I.E.

H. E. Clerk.

W. O. Horne, C.S.I.

R. B. Clegg.

R. C. C. Car.

A. Butterworth.

Surg.-Gen. W. B. Bannerman, C.S.I.; M.D., I.M.S.

Sir A. G. Bourne, K.C.I.E., D.Sc.

H. F. W. Gillman.

C. R. M. Schmidt.

Diwan Bahadur L. D. Swamikannu Pillai.

Haji Ismael Sait, Khan Bahadur.

T. Richmond.

Sir F. J. B. Spring, K.C.I.E.

P. Somasundara Chettiyar.

V. S. Srinivasa Sastri.

A. Muirhead, C.I.E.

#### SECRETARIES TO GOVERNMENT.

Chief Secretary to Government, A. G. Cardew.

Revenue, L. M. Wynch.

Local and Municipal, Education and Legislative, L. Davidson.

Public Works, (General), C. A. Smith, C.I.E.

Joint Secretary (Irrigation Branch), H. F. Clerk.

#### BOARD OF REVENUE.

First Member, Sir H. A. Stuart, K.C.V.O.; C.S.I.

Second Member, W. O. Horne, C.S.I.

Third Member, R. B. Clegg.

Fourth Member, L. M. Wynch, C.I.E.

#### MISCELLANEOUS APPOINTMENTS.

Commissioner of Revenue Settlement, etc.; A. Butterworth.

Revenue Survey Department, Director, D. G. Hatchell.

Director of Public Instruction, Sir A. G. Bourne, K.C.I.E.

Vice Chancellor of Madras University—

Registrar of Madras University, F. Dewsbury.

Inspector-General of Police, D. W. G. Cowie.

Surgeon-General, Surgeon-General W. B. Bannerman, C.S.I.

Accountant-General, J. F. Graham.

Inspector-General of Prisons, Lt.-Col. R. J. Macnamara, I.M.S.

Postmaster-General, C. H. Harrison.

Collector of Customs, H. H. Hood.

Commissioner of Salt, Abkari, etc.; N. S. Brodie.

Inspector-General of Registration, C. R. M. Schmidt.

President, Madras Corporation, P. L. Moore, C.I.E.

Director of the Kodaikanal and Madras Observatories, J. Evershed.

Supt., Govt. Central Museum, and Principal Librarian, Connemara Public Library, J. R. Henderson.

Piscicultural Expert, H. C. Wilson.

Persian and Hindustani Translator to Government, Major A. R. Nethersole, I.A.

Registrar of Co-operative Credit Societies, L. D. Swamikannu Pillai, Diwan Bahadur.

Scientific Officer for Planting Industries of S. India, R. D. Anstead.

Consulting Architect, W. H. Nicholls.

Presidents and Governors of Fort St. George in Madras.

William Gyfford .. .. 1684

Ellhu Yale .. .. 1687

Nathaniel Higginson .. .. 1692

Thomas Pitt .. .. 1698

Gulston Addison .. .. 1709

Died at Madras, 17 Oct., 1709.

Edmund Montague, (Acting) .. .. 1709

William Fraser, (Acting) .. .. 1709

Edward Harrison .. .. 1711

Joseph Collet .. .. 1717

Francis Hastings, (Acting) .. .. 1720

Nathaniel Elwick .. .. 1721

James Macrae .. .. .	1725	Henry Dickinson, (Acting) .. ..	1848
George Mortom Pitt .. .. .	1730	Major-General the Right Hon. Sir ..	1848
Richard Benyon .. .. .	1735	Henry Potttinger, Bart., G.C.B.	
Nicholas Morse .. .. .	1744	Daniel Elliott, (Acting) .. ..	1854
John Hinde .. .. .		Lord Harris .. .. .	1854
Charles Floyer .. .. .	1747	Sir Charles Edward Trevelyan, K.C.B.	1850
Thomas Saunders .. .. .	1750	William Ambrose Morehead, (Acting) ..	1860
George Pigot .. .. .	1755	Sir Henry George Ward, G.C.M.G.	1860
Robert Palk .. .. .	1763	Died at Madras, 2 August, 1860.	
Charles Bouchier .. .. .	1767	William Ambrose Morehead, (Acting.) ..	1860
Josias DuPre .. .. .	1770	Sir William Thomas Denison, K.C.B.	1861
Alexander Wynch .. .. .	1773	Acting Viceroy, 1863 to 1864.	
Lord Pigot (Suspended) .. ..	1775	Edward Maltby, (Acting) .. ..	1863
George Stratton .. .. .	1776	Lord Napier of Merchistoun, K.T. (a) ..	1866
John Whitehill, (Acting) .. ..	1777	Acting Viceroy.	
Sir Thomas Rumbold, Bart. .. ..	1778	Alexander John Arbuthnot, C.S.I. (Acting)	1872
John Whitehill (Acting) .. ..	1780	Lord Hobart .. .. .	1872
Charles Smith (Acting) .. ..	1780	Died at Madras, 27 April, 1875.	
Lord Macartney, K.B. .. ..	1781	William Rose Robinson, C.S.I., (Acting) ..	1875

### Governors of Madras.

Lord Macartney, K.B. .. .. .	1785	William Huddleston, (Acting) .. ..	1881
Alexander Davidson, (Acting) .. ..	1785	The Duke of Buckingham and Chandos ..	1875
Major-General Sir Archibald Campbell, K.B.	1786	The Right Hon. W. P. Adam .. ..	1880
John Holland, (Acting) .. .. .	1789	Died at Ootacamund, 24 May, 1881.	
Edward J. Holland, (Acting) .. ..	1790	William Huddleston, (Acting) .. ..	1881
Major-General William Meadows .. ..	1790	The Right Hon. M. E. Grant Duff .. ..	1881
Sir Charles Oakley, Bart. .. ..	1792	The Right Hon. Robert Bourke, P.C. ..	1886
Lord Hobart .. .. .	1794	Lord Connemara, 12 May, 1887 (by crea-	
Major-General George Harris, (Acting) ..	1798	tion.)	
Lord Clive .. .. .	1799	John Henry Garstin, C.S.I., (Acting) ..	1890
Lord William Cavendish Bentinck .. ..	1803	Baron Wenlock .. .. .	1891
William Petrie, (Acting) .. .. .	1807	Sir Arthur Elibank Havelock, G.C.M.G. ..	1896
Sir George Hilary Barlow, Bart., K.B. ..	1807	Baron Amptill .. .. .	1900
Lieut.-General the Hon. John Aber-	1813	Acting Viceroy and Governor-General.	
cromby .. .. .		1904.	
The Right Hon. Hugh Elliot .. ..	1814	James Thomson, C.S.I. (Acting) .. ..	1904
Major-General Sir Thomas Munro, Bart.,	1820	Gabriel Stokes, C.S.I., (Acting) .. ..	1906
K.C.B.		Hon. Sir Arthur Lawley, K.C.M.G., G.C.I.E.	1906
Died, 6 July, 1827.		Sir Thomas David Gibson-Carmichael, 1911	
Henry Sullivan Græme, (Acting) .. ..	1827	Bart., K.C.M.G., G.C.I.E. (b)	
Stephen Rumbold Lushington .. ..	1827	Became Governor of Bengal, 1 April, 1912.	
Lieut.-General Sir Frederick Adam, K.C.B.	1832	Sir Murray Hammick, K.C.S.I., C.I.E., 1912	
George Edward Russell, (Acting) .. ..	1837	(Acting.)	
Lord Elphinstone, G.C.H., P.C. .. ..	1837	Right Hon. Baron Pentland, P.C., G.C.I.E.	1912
Lieut.-General the Marquess of Tweed-	1842	(a) Afterwards (by creation) Baron Napier	
dale, K.T., C.B.		of Ettrick.	
		(b) Afterwards (by creation) Baron Carmi-	
		chael of Skirling.	

## The Bengal Presidency.

The Presidency of Bengal, as constituted on the 1st April 1912, comprises the Burdwan and Presidency divisions and the district of Darjeeling, which were formerly administered by the Lieutenant-Governor of Bengal; and the Rajshahi Dacca and Chittagong divisions which by the partition of the old Province had been placed under the administration of the Lieutenant-Governor of Eastern Bengal and Assam. The area of the Presidency is 84,092 square miles, and it possesses a population of 46,305,642 persons; included within this area are the two Native States of Cooch Behar and Hill Tippera, which are under the general supervision of the Government of Bengal, and the French territory of Chandernagore. The area of the British territory is 78,412 square miles. Bengal comprises the lower valleys and deltas of the Ganges and Brahmaputra, and in the main consists of a great alluvial plain intersected in its southern portion by innumerable waterways. In the north are the Himalayan mountains and sub-

montane tracts of Darjeeling and Jalpaiguri, and on the south-east the hills in Hill Tippera and Chittagong, while on the west the Chota Nagpur plateau is continued by an undulating tract running through the western portions of Midnapur, Bankura, Burdwan and Birbhum. The general range of the country however is very low, and a great fertile plain extends southward from Jalpaiguri to the forests and swamps known as the Sunderbans, which lie between the area of cultivation and the Bay of Bengal.

### The People.

Of the inhabitants of the Presidency 24,237,238 or 52.4 per cent. are Mahomedans and 20,945,379 Hindus. These two major religions embrace all but 2.4 per cent. of the population. Christians, Buddhists, and Animists combined number a little over 1,100,000. Bengali is spoken by ninety-two per cent. of the population of the Presidency and Hindi and Urdu by four per cent. The Oriya-speaking

people number nearly 300,000 and Naipall is the tongue of 80,000 persons principally residents in the Darjeeling and Jalpaiguri districts. The great majority of the speakers of the Munda languages are Santals in West and North Bengal.

### Industries.

According to the returns of the Census of 1911 nearly 35½ million persons or three-fourths of the population derive their support from pasture and agriculture, and of these 30 millions are cultivators, and 3½ millions farm servants and field labourers. The jute crop has greatly improved the economic status of the cultivator, especially in Eastern Bengal, and the area under this fibre in 1913 is estimated at 2,782,943 acres. Bengal is the most important rice-producing area in Northern India and it is computed that 84 per cent. of the cultivated area of the Presidency is devoted to its production. Other crops include barley, wheat, pulses, and oil-seeds, the area devoted to the last named being over 2 million acres. Sugar is produced both from the sugar-cane and the date palm, and tobacco is grown for local consumption in nearly every district of Bengal. There are over 370 tea gardens in the Presidency with a planted area of 138,000 acres.

### Manufactures.

The jute mills of Calcutta which constitute the principal manufacturing industry of the Presidency give employment to over 200,000 hands. The number of looms at work is 37,400 and the total export of jute and jute manufactures in 1912-13 exceeded £31½ millions of which £16½ millions represented the raw material. The industry has suffered from time to time from over-production but at present is experiencing exceptional prosperity and new mills are being erected, equipped with the most modern machinery. Other principal industries are cotton twist and yarn, silk yarn and cloth, hand-made cloth, sugar, molasses and paper. The silk weaving industry is in a fairly prosperous condition in the Bankura district and tasar and silk cloths are made in Burdwan. The manufacture of tea is carried on an extensive scale in Darjeeling and Jalpaiguri and the manufacture of lac is an industry of considerable importance. In 1912-13 the maritime trade of Bengal reached a total of Rs. 202½ crores 95 per cent. of which passed through the Port of Calcutta. The foreign trade amounted to Rs. 172½ crores of which Rs. 71½ crores represented imports and Rs. 100½ crores exports. Of the foreign trade 96 per cent. passed through Calcutta and 4 per cent. through Chittagong. The growth of Calcutta's commerce has been so rapid in recent years that the maritime trade exceeds the port accommodation available and urgent demands are being advanced for extensions both by importers of foreign merchandise and exporters of coal. With the re-adjustment of the boundaries of Bengal and the creation of a new Province of Behar and Orissa the more important coal-fields have passed into the new Province. The production of 1912 for Bengal itself, with Behar and Orissa, reached nearly 13½ million tons.

### Administration.

The present form of Government dates from the 1st of April 1912, when the administrative changes announced by the King-Emperor at

Delhi in December 1911 came into operation. A Governor was then substituted for a Lieutenant-Governor, who had previously been at the head of the Province, and Lord Carmichael of Skirling assumed charge of the office. The Governor is assisted by an Executive Council, two of whom are at present members of the Indian Civil Service and the third an Indian. The Civil Secretariat consists of the Chief Secretary, who is in charge of the Political and Appointment Departments, the General and Revenue Secretary, the Financial and Municipal Secretary, the Judicial Secretary, three Under-Secretaries and two Assistant Secretaries. The Government divides its time between Calcutta, Darjeeling and Dacca.

Bengal is administered by five Commissioners under the Governor-General in Council, the divisions being those of the Presidency, Burdwan, Rajshahi, Dacca and Chittagong. The unit of administration is the District Magistrate and Collector. As Collector he supervises the gathering of the revenue and is the head of all the Departments connected with it, while as District Magistrate he is responsible for the administration of Criminal justice in the district. The immediate superior of the District Magistrate is the Divisional Commissioner. Commissioners are the channels of communication between the local officers and the Government. In certain revenue matters they are, in their turn, subject to the Board of Revenue in Calcutta; in other matters they are under the Governor's direct control.

### Justice.

The administration of justice is entrusted to the High Court of Calcutta which consists of the Chief Justice who is a barrister and 19 puisne judges who are barristers, civilians or vakils. Below the High Court are the District and Additional Judges, the Small Cause Court and Subordinate Judges and the Munsifs. Of these officers the District and Additional Judges and a certain number of subordinate judges are also endowed with the power of a Criminal Court while the remainder have jurisdiction in Civil matters only. Criminal justice is administered by the High Court, the Courts of Session and the courts of the various classes of magistrates. On its appellate side the High Court disposes of appeals in respect of convictions by a Court of Session, and it also confirms, modifies or annuls sentences of death passed by Sessions Courts in the interior. Calcutta has six Presidency Magistrates, and also a number of Honorary Magistrates and it possesses a Court of Small Causes with six judges who dispose of cases of the class that are usually heard in County Courts in England.

### Local Government.

By the Bengal Act of 1884 which regulates municipal bodies in the interior the powers of Commissioners of municipalities have been increased. Municipal expenditure now comprises a large number of objects, including the veterinary institutions, the training and employment of female medical practitioners and the provision of free libraries. The Commissioners also have large powers in regard to the water-supply and also to the regulation of buildings. In Calcutta the Act of 1899 created three coordinate municipal authorities, the Corporation,

the General Committee and the Chairman. The total number of Commissioners is fifty, of whom 25 are elected, and the remainder appointed by Government and by commercial bodies. In order to improve the insanitary and congested areas of the city, the Calcutta Trust has been created with extensive powers. In the mofussil, District and Local Boards exercise considerable powers, and Union Committees have been formed which deal for the most part with the control of village roads, sanitation and water-supply.

### Finance.

As in other Provinces, the revenue is divided between the Local Government and the Government of India. The Budget for 1913-14 showed an opening balance of Rs. 2·84 crores, estimated revenue amounted to Rs. 5·93 crores and expenditure aggregated 6·82 crores. Of the closing balance of Rs. 105 lakhs, Rs. 143½ lakhs was earmarked for various objects, including the Calcutta Improvement Trust, the new Dacca University, police re-organisation and education. In view of the importance of the new Presidency of Bengal starting with a substantial balance, the Government of India provided it with an opening balance of Rs. 150 lakhs, to which they added special grants from the surplus of the opium revenue of Rs. 166½ lakhs. Owing to the Permanent Settlement of Bengal at the close of the eighteenth century the land revenue per acre is very low, the zemindars and their tenants having shared between them the whole advantage accruing from the enormous increase in the value of the produce of the soil which has taken place. The question whether the Zemindars who were confirmed in possession by the Permanent Settlement were really landholders or merely collectors of revenue has long been the subject of controversy.

### Public Works.

The Public Works Department is at present under the charge of a Chief Engineer. The redistribution of territories on 1st April 1912 caused considerable changes in this Department, and almost all the irrigation works in the old province of Bengal as well as two out of the three Canal Revenue Divisions went to the new Province of Behar and Orissa. There was also a considerable reduction in the staff and in the number of Public Works Circles and Divisions. Public buildings are erected by the Department which also constructs roads and carries out miscellaneous improvements. Irrigation works in Bengal are under the charge of the Irrigation Department which deals with the numerous waterways that intersect the Province.

### Police.

The Bengal Police Force is split up into four divisions, the District Police, Railway Police, River Police (now in course of formation) and the Calcutta City Police. The District Police are under the control of the Inspector-General of Police, who is usually a Covenanted Civilian, although the office is open to gazetted members of the Force. Under him are Deputy Inspectors-General for the Dacca range, the Rajshahi range, and the Presidency range, and also a Deputy Inspector-General in charge of the C.I.D., the Railway and River Police. Each district is in charge of a District Superintendent,

and five of the more important districts have an Additional Superintendent, with a cadre comprising Assistant Superintendents, Deputy Superintendents, Inspectors, Sub-Inspectors, head constables and constables. The River Police Force, the formation of which has not yet been completed, will be under the Deputy Inspector-General who has charge of the C.I.D. There is also a Village Police, comprised of duffadars, who each have charge of a thana, and chowkidars who are under the District Magistrate. The Calcutta City Police is a separate force maintained by Government under a Commissioner who is responsible direct to Government. The Commissioner has under him Deputy Commissioners, Inspectors, Sub-Inspectors, head constables and constables, and a reserve force of about 100 European sergeants. There is a training school at Sardar, where young gazetted officers and Sub-Inspectors learnt their duties. The annual cost of the Police is nearly Rs. 100 lakhs.

### Medical.

The head of the Medical Department is the Inspector-General of Civil Hospitals, and Sanitation is in charge of the Sanitary Commissioner, both these officials being members of the Indian Medical Service. There is also a Sanitary Engineer for the Presidency. In the districts the Civil Surgeons are responsible for medical work. There are 19 hospitals in Calcutta, 9 of which are supported by the Government and 340,000 persons are treated at these institutions annually, of whom nearly 30,000 are in-patients. In the mofussil districts there are several hundred hospitals and dispensaries, the number of patients treated annually in the Province, as it stood prior to the re-partition, being 4,630,000 including 69,700 in-patients.

### Education.

In the Presidency of Bengal education is imparted partly through Government agency and partly through private bodies, assisted in large measure by Government grants-in-aid. Government maintains three Arts colleges in Calcutta (of which one is a college for women), one at Hooghly, one at Krishnagar, one at Dacca, one at Rajshahi and one at Chittagong. It also maintains two training colleges for teachers in high schools at Calcutta and Dacca, an engineering college at Sibpur and an engineering school at Dacca, a medical college, a veterinary college, a school of art and a commercial school in Calcutta and a weaving school at Serampore. It also provides at the head quarters of all districts except Burdwan and Midnapore, and also at certain other mofussil centres model high English schools for the education of boys, while each Government Arts college has a collegiate school attached also under Government control. Government high schools for girls exist only in the head-quarters' station of Calcutta, Dacca, Mymensingh and Chittagong. The other secondary schools, with the exception of a few middle schools managed either by Government or by Boards, are under private control. The administration of primary education rests mainly with the district and local boards, large grants being given from provincial revenues to the boards, which contribute only slightly from their own funds. Only in backward localities are such schools either entirely managed, or

directly aided, by Government. Apart from the institutions referred to above, 130 institutions called Guru Training Schools are maintained by the Department for the training of vernacular teachers. For the education of Mahomedans, there are senior madrasas at Calcutta, Dacca, Chittagong and Hooghly, which are managed by Government. There are also certain Government institutions for technical and industrial education. A large proportion of educational work of every stage is under the control of various missionary bodies, which are assisted by Government grants-in-aid.

The municipalities are required to expend a certain proportion of their ordinary income on education. They are mainly responsible for primary education within their jurisdiction, but schools in these areas are eligible also for grants from Government. These bodies maintain a second grade Arts College and a high school at Midnapore, a high school at Burdwan, and a high school at Chittagong.

There are now in the Presidency :—

Arts Colleges	..	..	33
Law	..	..	9
Medical	..	..	1
Engineering Colleges	..	..	2
Training Colleges	..	..	3
Secondary Schools	..	..	2,317
Primary Schools	..	..	35,186
Special	..	..	3,008
Private Institutions	..	..	2,380

with 16,97,714 pupils in all.

The Government Educational Budget allotment for the province for 1913-1914 is Rs. 1,31,88,000. Of this a large proportion represents the grants recently allotted by the Government of India.

The Department is administered by a Director of Public Instruction assisted by an Assistant Director and an Officer on special duty for work in connection with general education, and by a special officer in connection with Technical and Industrial Education. A Special Officer is shortly to be appointed in connection with development of Mahomedan education. Each division is in charge of a Divisional Inspector assisted by a certain number of Additional and Assistant Inspectors according to the requirements of the several divisions. Similarly the administrative charge of the Primary education of each district is in the hands of a Deputy Inspector assisted by Additional Deputy and Sub-Inspectors of Schools, the latter class officers being in some instances helped by officers of humbler status called Assistant Sub-Inspectors and Inspecting Pandits. Higher education is controlled by the University (Calcutta) established in 1857, administered by the Chancellor, (the Governor General and Viceroy of India), the Rector (the Governor of Bengal), the Vice Chancellor (appointed by the Government of India, usually for two years at a time) and 100 fellows, of whom 10 are *ex-officio*, 10 are elected by the Graduates, 10 by the Faculties and the remainder (70) are nominated by the Chancellor. This University maintains one Law College called the University Law College, Calcutta. The University is mainly an examining University, but is rapidly developing into a teaching University also.

The principal educational institutions are :—  
GOVERNMENT ARTS COLLEGES.

Presidency College, Calcutta, Principal, H. R. James.  
Dacca College, Principal, A. A. J. Archbold.  
Rajshahi College, Principal, Rai K. Banerjee  
Bahadur.  
Chittagong College, Principal, F. C. Turner.  
Sanskrit College, Calcutta, Principal, S. C. Acharyya.  
Hooghly College, Principal, S. P. Dass.  
Krishnagar College, Principal, S. C. Dey.  
Bethune College, Calcutta, Lady Principal, Mrs. K. Das.

#### PRIVATE ARTS COLLEGES.

*Aided.*

Scottish Churches College, Calcutta, Principal, Rev. J. Watt.  
St. Xavier's College, Calcutta, Principal, Rev. Father Crohan.  
L. M. S. College, Bhowanipore (Calcutta), Principal, Rev. W. G. Brockway.  
Jaganath College, Dacca, Principal, L. M. Chatterji.  
Braj Mohan College, Barisal, Principal, N. L. Mookherjee.  
Ananda Mohan College, Mymensingh, Principal J. C. Ghosh.  
Victoria College, Comilla, Principal, Satyendra Nath Basu.  
Wesleyan College, Bankura, Principal, Rev. J. Mitchell.  
Victoria College, Narail, Principal, Gopal Chandra Maitra.  
Hindu Academy, Daulatpur, Principal, Kamakhya Charan Nag.

*Unaided.*

City College, Calcutta, Principal, Heramba Chandra Maitra.  
Ripon College, Calcutta, Principal, Ramendra Sundar Trevedi.  
Bangabasi College, Calcutta, Principal, G. C. Bose.  
Metropolitan Institution, Calcutta, Principal Saradaranjan Roy.  
Bishop's College, Calcutta, Principal, Rev. R. Gee.  
Central College, Calcutta, Principal, Khudiram Bose.  
C. M. S. College, Calcutta, Principal, Rev. W. S. Holland.  
Diocesan College, Calcutta, Lady Principal Sister Mary Victoria.  
Krishna Chandra College, Metampur, Principal, Dhurmadass Dutt.  
Burdwan Raj College, Principal, Umacharan Bandhyopadhyay.  
Uttarpara College, Principal, Jogendra Nath Maitra.  
Serampore College, Principal, Dr. George Howells.  
Edward College, Farnab, Principal, Atul Chandra Sen.  
Loreto House, Calcutta, Lady Principal, Mother Gonzaga.

#### MUNICIPAL.

Midnapore College, Principal, Jogendra Nath Hazra.

#### COLLEGES FOR PROFESSIONAL TRAINING. *Engineering-Government.*

Civil Engineering College, Sibpur, Principal, B. Heaton.

*Teaching-Government.*

David Hare Training College, Principal, W. E. Griffith.

Dacca Training College, Principal, E. E. Bliss.

L. M. S. Training College, Bhowanipore, (Calcutta), Principal, Roy, W. G. Brookway.

*Medicine-Government.*

Medical College, Calcutta, Principal, Lt.-Col. J. T. Calvert.

*Law.*

University Law College, Calcutta, Principal, Dr. Satis Chandra Bagchi.

The Law Department attached to the Dacca College, Vice-Principal, Muazzam Ali.

The Law Department attached to the Ripon College, Calcutta, Principal, Janaki Nath Bhattacharji.

There are also Pleaders' classes attached to the Government Colleges at Dacca, Rajshahi, Chittagong and Krishnagar and in the unaided college at Berhampore, the Ripon College and the Metropolitan Institution, Calcutta, and the Municipal College at Midnapore.

**Administration.**

**GOVERNOR AND PRESIDENT IN COUNCIL.**

His Excellency The Rt. Hon. Thomas David, Baron Carmichael of Skirling, G.C.I.E., K.C.M.G. Took his seat, 1st April, 1912.

**PERSONAL STAFF.**

*Private Secretary*, W. R. Gourlay.

*Military Secretary*, Major H. F. Bateman-Champain, 9th Gurkhas.

*Surgeon*, Capt. J. H. Burgess, M.D.; I.M.S.

*Aides-de-Camp*, Lieut. H. G. Vaux, Cornwall Light Infantry; Lieut. the Hon. C. A. J. Annesley, Oxford and Bucks L.I.

*Honorary Aides-de-Camp*, Commander C. J. C. Kendall, D.S.O., R.I.M.; Lieut.-Col. G. G. Gordon, C.I.E.; Commander E. A. Constable, R.N.; Major R. Glen, V.D.; Hon. Col. C. Routh.

*Extra Aides-de-Camp*, Capt. K. Robertson; Lieut. M. B. Stone; Lieut. G. Vivian;

Lieut. E. F. Berry.  
*Indian Aide-de-Camp*, Risaldar Ismail, Khan Bahadur.

*Commander of Body Guard*, Capt. R. B. Worgan, 20th Deccan Horse.

*Adjutant of Body Guard*, Lieut. W. Kenworthy, 33rd Cavalry.

**BENGAL EXECUTIVE COUNCIL.**

Sir F. W. Duke, K.C.I.E., C.S.I. Took his seat, 1st April 1912.

P. C. Lyon, C.S.I. Took his seat, 1st April 1912.

Syed Shamsul Huda, Took his seat, 1st April 1912.

**LEGISLATIVE COUNCIL OF BENGAL.**

*Councillors, Ex-Officio.*

Mr. P. C. Lyon, C.S.I., I.C.S.

Nawab Syed Shams-ul-Huda.

*Nominated, Officials.*

Mr. D. J. Macpherson, C.I.E.

„ J. Lang.

„ J. G. Cumming, C.I.E.

„ D. Beatson-Bell, C.I.E.

„ B. K. Finimore.

Mr. J. Donald

„ H. F. Samman.

„ Babington B. Newbould.

„ H. H. Green.

„ Binod Chandra Mitra.

„ W. W. Hornell.

Rai Priya Nath Mukharji Bahadur.

Mr. A. N. Moberly.

„ S. W. Goode.

*Nominated, Non-officials.*

Nawab Sir Khwaja Salimullah Bahadur, G.C.I.E.,

K.C.S.I.

Mr. H. J. Hilary.

„ Satyendra Prasanna Sinha.

Dr. Nilratan Sarkar.

Raja Hrishikesh Laha, C.I.E.

Mr. R. Glen.

*Elected.*

Mr. Byomkes Chakravarti.

Sir Bijay Chand Mahtab.

Maharajadhiraja of Burdwan.

Maharaja Jagadindra Nath Ray.

Raja Soshi Kanta Acharyya Chaudhuri Bahadur

Dr. Deba Prosad Sarbadhikari.

Mr. J. G. Apcar.

Rai Radhacharn Pal Bahadur.

Mr. N. McLeod.

„ J. C. Shorrocks.

„ W. T. Grice.

„ V. Woods.

„ A. W. C. Chaplin.

„ Golam Hoossain Cassim Ariff.

Munshi Mazharul Anwar Chaudhuri.

Maulvi Musharrat Hussain.

Maulvi Abdul Kasem Fazl-ul-Haq.

Nawab Saiyid Hoossain Haidar Chaudhuri;

Khan Bahadur.

Maharaja Ranjit Sinha of Nashipur.

Rai Nalinaksha Basu Bahadur.

Raja Mahendra Ranjan Ray Bahadur.

Nawab Saiyid Nawab Ali Chaudhuri, Khan

Bahadur.

Babu Prasanna Kumar Roy.

Babu Surendra Nath Banarji.

Babu Surendra Nath Roy.

Babu Mohendra Nath Ray.

Rai Ifari Mohan Chandra Bahadur.

Babu Ananda Chandra Ray.

Babu Upendra Lal Ray.

**SECRETARIAT.**

*Chief Secretary to Government*, C. J. Stevenson-Moore, C.V.O.

*Secretary, Revenue and General Departments*,

J. H. Kerr, C.I.E.

*Secretary, Financial and Municipal Departments*,

H. L. Stephenson.

*Secretary, Judicial Department*, E. P. Chapman.

*Secretary to the Council and Assistant Secretary,*

*Legislative Department*, F. G. Wigley, C.I.E.

*Secretary to Government, Public Works Department,*

*and Chief Engineer*, B. K. Finimore.

*Deputy Secretary to Government, Public Works Department, (Irrigation Branch)*, F. A. A.

Cowley.

**BOARD OF REVENUE.**

*Member*, D. J. Macpherson, C.I.E.

*Secretary*, W. A. Marr.

**MISCELLANEOUS APPOINTMENTS.**

*Director of Public Instruction*, W. W. Hornell

*Principal, School of Art*, P. Brown.

*Inspector-General of Police*, R. B. Hughes

Buller, C.I.E.

<i>Commissioner, Calcutta Police</i> , Sir F. L. Halliday, C.I.E., M.V.O.	George Campbell	1871
<i>Conservator of Forests</i> , C. E. Muriel.	Sir Richard Temple, Bart., K.C.S.I.	1874
<i>Inspector-General of Civil Hospitals</i> , Col. G. F. Harris, C.I.E.	The Hon. Ashley Eden, C.S.I.	1877
<i>Sanitary Commissioner</i> , Major W. W. Clemsha.	Sir Stuart C. Bayley, K.C.S.I., (Offg.)	1879
<i>Deputy Sanitary Commissioner for Malaria Research</i> , Major A. B. Fry.	A. Rivers Thompson, C.S.I., C.I.E.	1882
<i>Collector of Customs, Calcutta</i> , R. F. L. Whitty.	H. A. Cockrell, C.S.I. (officiating)	1885
<i>Commissioner of Excise and Salt</i> , J. Donald.	Sir Stuart C. Bayley, K.C.S.I., C.I.E.	1887
<i>Accountant-General</i> , H. G. Tomblins, C.I.E.	Sir Charles Alfred Elliott, K.C.S.I.	1890
<i>Inspector-General of Prisons</i> , Lt.-Col. W. J. Buchanan, C.I.E.	Sir A. P. MacDonnell, K.C.S.I. (Offg.)	1893
<i>Postmaster-General</i> , P. G. Rogers, I.C.S.	Sir Alexander Mackenzie, K.C.S.I.	1895
<i>Inspector-General of Registration</i> , P. N. Mukharji.	Retired 6th April 1898.	
<i>Director of Agriculture</i> , J. R. Blackwood.	Charles Cecil Stevens, C.S.I. (Officiating)	1897
<i>Protector of Emigrants</i> , C. Banks, M.D.	Sir John Woodburn, K.C.S.I.	1898
<i>Chairman of Calcutta Corporation</i> , C. F. Payne.	Died, 21st Nov. 1902.	
<i>Superintendent, Royal Botanic Gardens</i> , Major A. T. Gage.	J. A. Bourdillon, C.S.I. (Officiating)	1902
<i>Coroner</i> , F. K. Dobbin.	Sir A. H. Leth Fraser, K.C.S.I.	1903
<i>Registrar of Co-operative Credit Societies</i> , J. M. Mitra.	Lancelot Harre, C.S.I., C.I.E. (Offg.)	1906
LIEUTENANT-GOVERNORS OF BENGAL.		
Frederick J. Halliday	P. A. Slacke (Officiating)	1906
John P. Grant	Sir E. N. Baker, K.C.S.I.	1908
Cecil Beadon	Retired 21st Sept. 1911.	
William Grey	F. W. Duke, C.S.I. (Officiating)	1911
	The office of Lieutenant-Governor of Bengal was abolished on April 1st 1912, when Bengal was raised to a Governorship.	
GOVERNORS OF THE PRESIDENCY OF BENGAL.		
	WILLIAM IN BENGAL.	
	The Rt. Hon. Baron Carmichael of Skirling, G.C.I.E., K.C.M.G.	1912

## The United Provinces.

The United Provinces of Agra and Oudh lie in practically the centre of Upper India. They are bounded on the north by Tibet, on the north-east by Nepal, on the south and south-east by Bengal, on the south by two of the Chota Nagpur States of the Central India Agency and the Saugor District of the Central Provinces, and on the west by the States of Gwalior, Dholpur, Bharatpur, Simor, and Jubbah, and by the Punjab. Their total area amounts to 107,267 square miles, to which may be added the area of the two Native States of Tehri and Rampur, both of which lie within the United Provinces, 5,079 square miles and the newly-created independent State of Benares with an area of 865 miles, giving a total of 112,346 square miles. The total population is 48,014,080, out of which Tehri and Rampur account for 832,030.

The Provinces, originally termed the North-Western Provinces and so amalgamated in 1877, receiving their present designation in 1902, include four distant tracts of country: portions of the Himalayas, the sub-Himalayan tracts (the Kumaon), the great Gangetic plain and portions of the hill systems of Central India (Bundelkhand). The first two of these tracts are infertile and support a very sparse population and the Central Indian plateau is almost equally infertile, though better populated. The soil of the Gangetic plain, however, possesses an extreme fertility and here the density of population rises from 512 persons per square mile in the west, to 549 in the centre and 718 in the east, which gives the Provinces as a whole a greater population pressure on the soil than any other Provinces in India. In the south there are low rocky hills, broken spurs of the Vindhyan mountains, covered with stunted trees and jungle, and in the North the lower slopes of the Himalayas, clothed with dense

forest, affording excellent big and small game shooting, and rising beyond in a tangled mass of ridges, ever higher and higher, until is reached the line of the eternal snows, but the greater part of the provinces consists of level plain, teeming with highly-cultivated fields and watered by four rivers—the Ganges, Jumna, Gogra and the Gunti.

### The People.

The population is mainly Hindu, 85 per cent. ranking as such whilst Mahomedans number 14 per cent., the total of all other religions being less than 0.6 per cent. composed of Christians (Europeans and Indians), Jains, Aryas and Sikhs; the Aryas are the followers of the Arya Samaj sect, which obtains widely in the Punjab and has extended its influence to the United Provinces. The three main physical types are Dravidian, Arya and Mongoloid, the latter being confined to the Himalayan and sub-Himalayan districts and the former to South Mirzapur and Bundelkhand, whilst the high-caste Aryans frequent the western Districts of the Province. Most of the people, however, show a mixed Arya-Dravidian origin. Three languages are spoken by the great majority of the people in the plains—Western Hindi, Eastern Hindi and Behari; Urdu, or Hindustani, is a dialect of Western Hindi, though it contains a large admixture of Persian and Arabic words, which makes it a *lingua franca*.

### Industries.

The principal industry is agriculture, which supports no less than 70.7 of the population. The soils of the Provinces fall into three groups; the valley soils of the Himalayas, the main alluvium, and the Central Indian alluvium; the vast characteristic soil of the

Central India alluvium is the black soil, with a lighter variant, though here also there are light loams and gravel. The Himalayan soils are of local origin and vary with the nature of the rock from which they have been formed, whilst the main alluvium soils are sand, clay and loam, the loam being, naturally, the most productive. The soil generally yields excellent crops of rice, millet, maize, linseed, cotton, wheat, sugarcane, pulses, barley and poppy, rice being grown mostly in low-lying, heavy clays. The greater part of the Provinces is highly cultivated, the rainfall varies from 50 to 60 inches in the Hills, to 40 inches in the Benares and Gorakhpur Divisions, whilst the Agra Division receives about 25 to 30 inches annually only. Drought seriously affected Bundelkhand and the Agra Division, in the past, but improved drainage, and irrigation (a protective system of irrigation works exists and is being extended) have enabled a complete recovery to be made and the agricultural prosperity of the Provinces is now high, though it varies with the rainfall. The great scourge has been, and is, that of plague, which hampers the agriculturist severely, and in the Terai, malaria still exacts a large toll. Land is held mostly on the ryotwari tenure in Bundelkhand and Kumaon, on zemindari tenure in Agra and taluqdari tenure in Oudh. The principal land owners in Oudh are the Taluqdars, some of whom own very large estates. The area held in taluqdari tenure amounts to 51 per cent. of the total area in Oudh.

### Manufactures.

The Provinces are not rich in minerals. Coal exists in Southern Mirzapur, iron and copper are found in the Himalayan Districts, and there were mines of importance there formerly, but increased difficulty of working them as veins became exhausted resulted in the closure of most of them. Gold is found in minute quantities by washing in some of the rivers in the Hills. Limestone is found in the Himalayas and stone is largely quarried in the Mirzapur District. Cotton is ginned and spun throughout the provinces, as a home industry, and weaving, by means of hand-loom, is carried on in most districts. In 1901 nearly a million persons were dependent on weaving, 140,000 on spinning and 136,000 on cleaning, pressing, and ginning, but during the last decade these industries have been on the decrease. The largest industry is in Azamgarh district, where there are 130,000 looms. Silk spinning is confined almost entirely to the district of Benares, where the famous *Kinkob* brocade is made. Embroidery is manufactured in Lucknow, where the noted *chikan* work of silk on cotton or muslin, is produced, and in Benares, where gold and silver work on velvet silk, crepe and sarsenet obtains. The glass industry is important in some districts, Benares and Moradabad are noted for their lacquered brass work, porcelain is manufactured at Ghazipur, and other industries are those of paper-making (Lucknow) dyeing, leather-work and fireworks. The chief centre of European and Indian industry is Cawnpore, which, situated in most advantageous position on the Ganges, possesses tanneries, cotton, woollen, jute and other mills, which have a large and ever increasing output (the woollen mill is the largest in India). There are cotton

factories at Aligarh (famous for its locks) Meerut and Bareilly; Mirzapur (which produces also excellent carpets), Hardoi and Hathras have cotton mills. Excellent furniture is made at Bareilly, at Allahabad there are stone works, at Rosa there is a very large English distillery, with patent still, and the provinces can claim six breweries, with an out-turn of over a million gallons.

The largest trade centres are Cawnpore, Allahabad, Mirzapur, Benares, Lucknow, Meerut, Aligarh, Hathras, Muttra, Agra, Farukhabad, Moradabad, Chandausi, Bareilly, Saharanpur, Muzaffarnagar, Ghaziabad, Khurja, Gorakhpur, Ghazipur, Pilibhit and Shahjahanpur.

### Administration.

The Provinces are administered by a Lieutenant-Governor, who is generally chosen from among the members of the Indian Civil Service who have served in the Province. The medium for the transaction of public business is the Secretariat, the Staff of which consists of five Secretaries and five Under-Secretaries. The Chief Secretary is in charge of the Revenue, Appointment, General Administration, Political and Forest Departments; another Secretary attends to the Medical, Judicial, Police, Educational and Sanitation Departments; whilst a third looks to the local Self-Government, Financial, Municipal, Miscellaneous and Separate Revenue Departments. The other two Secretaries belong to the Public Works Department, and are also Chief Engineers, one of whom deals with Irrigation, and the other with Roads and Buildings. Government spends the cold weather, October to April, in Lucknow and Allahabad, mostly in Lucknow, the Secretariat moves between these two places. The Lieutenant-Governor and the Secretariat spend the hot weather in Naini Tal, but during the monsoon the Lieutenant-Governor tours the plains, as he does also in the cold weather. The Board of Revenue is the highest court of appeal in revenue and rent cases, and it has important executive duties, being the chief revenue authority in the Provinces. There are forty-eight British districts, thirty-six in Agra and twelve in Oudh, average area 2,000 square miles and average population a million. Each District is in charge of a District Officer, termed a Collector and Magistrate in Agra and a Deputy Commissioner and Magistrate in Oudh and Kumaon, who is an Indian Civilian. The Districts are grouped together in Divisions under a Commissioner. There are nine Divisions, having an average area of nearly 12,000 square miles and a population of from 5 to 6 millions. The District are sub-divided into *tahsils*, of which there are 217, with an average area of 500 square miles and a population of 220,000. Each *Tahsil* is in charge of a *Tahsildar*, who is responsible for the collection of revenue, and also exercises judicial powers. *Tahsils* are divided into *parganas* which are units of importance in the settlement of land revenue. Subordinate to the *Tahsildars* are *kanungos*, of whom there are, on an average, three to a *tahsil*. These officials supervise the work of the *patwaris*, or village accountants, check their papers and form a link direct between the villagers and Government. For judicial purposes (revenue and criminal), the District Officer assigns a subdivision, consisting of one or more



*tahsils*, as the case may be to each of his subordinates, who may be covenanted civilians, (Joint and Assistant Magistrates and Collectors) or members of the Provincial Service (Deputy Collectors and Magistrates). The Commissioner of the Bareilly and Kumaon Divisions are Political Agents for the Native States of Rampur and Tehri respectively and the Commissioner of Benares is the Political Agent for Benares State.

### Justice.

Justice is administered by the High Court in the Province of Agra, and the Court of the Judicial Commissioner, in Oudh, which are the final appellate authorities in both criminal and civil cases. The former, which consists of a Chief Justice and five puisne Judges, two of whom are Indians, sits at Allahabad, and the latter, represented by a Judicial Commissioner and two Additional Commissioners, one of whom is an Indian, sits always in Lucknow. There are twenty-seven District and Additional District Judges, (Indian Civilians) twenty-one in Agra and six in Oudh, who have both original and appellate jurisdiction in civil and criminal cases, and occasional appellate jurisdiction in rent cases, but District Officers and their assistants, including *Tahsildars*, preside in both criminal and rent and revenue courts, and dispose of a good deal of the work. In Kumaon, the Commissioner is a High Court Judge in Civil cases, and a District Judge in Criminal cases. In the larger Cantonnments, the Cantonment Magistrates have limited powers as Judges of a Small Cause Court. There are also Subordinate Judges, Judges of Small Cause Courts and Munsifs, who dispose of a large number of small civil suits, being specially empowered, in some cases, to decide suits up to Rs. 2,000, but generally they take cases up to Rs. 1,000, whilst Subordinate Judges hear cases up to Rs. 5,000. Appeals from Munsifs and Subordinate Judges go to the District Judges. Small Cause Court Judges try suits to the value of Rs. 500. There are also Honorary Munsifs, limited to Rs. 200 suits, and village Munsifs, whose jurisdiction is fixed at Rs. 20.

### Local Government.

Local Government is exercised by means of District and Municipal Boards, the former levying local rates on land-owners; the latter deriving its revenue from octroi and other forms of taxation. The aim is to abolish octroi, because it interferes with through trade. Eighty-five Municipalities possess the privilege of electing their own members and some of them have non-official Chairman. They are generally composed of nominated and elected members, with an official Chairman, who guides them in their duties. They deal with questions of sanitation, communication, lighting, town improvement, roads, water supply, drainage and education. Grants are made to Boards by Governments in some cases for special purposes from general revenues. There is a tendency in the Provinces to give local self-government a wider extension by means of an increase in the number of boards with non-official Chairmen and recently this privilege has been extended to fifteen Municipalities. Small towns, termed Act XX towns also enjoy some measure of local self-government and it is under consideration to extend the principle here, too.

### Finance.

The Financial history of the Province has not been a happy one, inadequate settlements, i.e., contracts between the Government of India and the local Government, and the severe famine in 1896 having caused Provincial bankruptcy, which for a long time necessitated rigid economy in order to accumulate reserves which could be spent on productive works. Recently liberal Imperial assignments have been made by the Government of India and the financial prospects are accordingly much brighter, giving hopes that ambitious schemes of reform will be able to be carried into effect. The local Government gets 3-8 only of the land revenue. The Provincial Budget for 1913-14 shows an opening balance of 160 lakhs, revenue 633 lakhs, and expenditure 671 lakhs, and a closing balance of 131 lakhs.

### Public Works.

The Public Works Department is divided into the Roads and Buildings branch and the Irrigation branch, each of which is administered by a Chief Engineer, who is also a Secretary to Government. The Provinces are divided into three circles and ten divisions for the administration of roads and buildings, and into four circles and twenty divisions for irrigation purposes. Each circle is in charge of a Superintending Engineer, and each division is in charge of an Executive Engineer. The whole of the irrigation works constructed or maintained by Government are in charge of the Department, nearly all metalled roads, and also bridges on second-class roads, and generally, all works costing more than Rs. 1,000, except in Municipalities. The most important irrigation works within the last twenty years have been the construction of the Betwa Canal, the Fatehpur branch of the Lower Ganges Canal, the Mat branch of the main Ganges Canal, improvements in the Rohilkhand and Terai Canals and extensive drainage operations in the Doab districts of the Meerut and Agra division. Important irrigation extension works are now being considered. The budget for irrigation and other public works for the present year is 151 lakhs.

### Police.

The Police Force is divided into District and Railway Police and is administered by an Inspector-General, with five Deputies, one of whom is in charge of Railways, and two Assistants, forty-nine District Superintendents, two Railway Superintendents, and thirty Assistant Superintendents. There is a Police Training School at Moradabad. There is a local C. I. D. forming a separate detective department, under a Deputy Inspector General, with an assistant. There is an armed police, specially recruited, and armed with the Martini Rifle. The present cost of the force is 124 lakhs. The administration of the Jail department is in charge of an Inspector-General of Prisons, who is a member of the Indian Medical Service.

### Education.

Education is partly, wholly State-maintained; partly by means of grants-in-aid. There is a State University at Allahabad, a Government Sanskrit College at Benares, whilst Arabic and Persian are taught in special classes at the Muti College, Allahabad, which also has a special science side, which of late

has been greatly extended, and there is a Government Engineering College at Roorkee (Thomson College). There are aided Colleges in Lucknow (Canning College), (Reid Christian College), and (Isabella Thoburn College), Agra (St. John's), Aligarh (the Mahomedan Oriental College), Gorakhpur, Cawnpore and Meerut, and an unaided College at Benares, the Central Hindu College. In Lucknow there is the Martiniere school, an entirely independent institution, for European and Anglo-Indian children, and there is a Girls' Martiniere connected with it, whilst in the Hill-Station, Naini-Tal and Mussoorie, there are many excellent private scholastic institutions for European boys and girls, which are attended by students from all over India. Government maintain Training Colleges, for teachers in Lucknow and Allahabad, an Art Crafts and an Industrial School in Lucknow, and an Agricultural College at Cawnpore. Public Schools are almost entirely maintained by the District and Municipal Boards and primary education is almost entirely in their hands. Primary and female education are in a very backward condition and a Committee has recently been sitting at Naini Tal to suggest a remedy. Technical education is being pushed forward and there is a proposal to establish a Technological Institute in Cawnpore. At the close of 1911 there were 1689 urban schools, attended by 103,138 scholars and 10,003 rural schools attended by 482,355 scholars, and the number of secondary schools for Indian boys was 545, viz. Anglo-Vernacular High Schools 109 with 42,611 scholars, Vernacular Middle Schools 375 with 45,378 scholars and English Middle Schools 68 with 10,284 scholars. The amount budgetted for education this year is 76 lakhs.

Higher education is controlled by the Allahabad University (constd. in 1887) which consists of a Chancellor, Vice-Chancellor and seventy-five ordinary and four *ex-officio* Fellows, of whom some are elected by the Senate or by registered graduates and the Faculties, and the remainder nominated by the Lieutenant-Governor, in his capacity of Chancellor. The Faculties are those of Art, Science, Law and Medicine, and the University possesses an important Law School. It is proposed to establish a Mahomedan University at Aligarh and a Hindu University at Benares, identifying the M. A. O. College with the former and the Central Hindu College with the latter.

The principal educational institutions are:—  
The Mahomedan Anglo-Oriental College, Aligarh—Principal, J. H. Towle.

The Central Hindu College, Benares—Principal, A. W. Davies.

St. John's College, Agra—Principal, Rev. H. B. Durrant.

Muir College, Allahabad—Principal, S. G. Jennings.

Queen's College, Benares—Principal, A. Venis.

Canning College, Lucknow—Principal, M. B. Cameron.

Agra College—Principal, T. Cuthbertson Jones.

Reid Christian College, Lucknow—Principal, Rev. C. L. Bare.

Meerut College—Principal, William Jesse.

Woodstock College, Mussoorie,—President, Rev. E. M. Wherry.

Bareilly College—Principal, J. H. Aldercoorn.  
Christian College, Allahabad—Principal, Rev. Arthur H. Ewing.

Christ Church College, Cawnpore—Principal Rev. M. S. Douglas.

Isabella Thoburn College, Lucknow—Principal, Miss Robinson.

Thomason College, Roorkee—Principal, Lt.-Col. E. H. de Vere Atkinson.

King George's Medical College, Lucknow—Principal, Major Selby, I. M. S.

### Medical.

The Medical Department is in charge of an Inspector-General of Civil Hospitals. A Civil Surgeon is in charge and is responsible for the medical work of each district, and in a few of the larger stations he has an assistant. In two stations (Ranikhet and Almora) Medical Officers in military employ hold collateral civil charge. There are eighty-three Assistant Surgeons in charge of important dispensaries and a large number of Indian hospital assistants. Lady doctors and female hospital assistants visit *purdā nashin* women in their own homes and much good work is done in this manner.

The best equipped hospitals, for Indian patients are the Thomason Hospital at Agra and the Balmampur Hospital at Lucknow. The Ramsay Hospital for Europeans at Naini Tal is a first class institution and there are also the Lady Dufferin Hospitals. King George's Medical College has been opened recently in Lucknow and the hospital in connexion with it will be opened in the Autumn of the present year. The College is one of the best equipped in the country, with a staff of highly efficient professors, and the hospital will be the first in the Provinces. There is an X-Ray Institute at Dehra Dun, where valuable research work has been carried out and the Pasteur Institute at Kasauli take cases from all parts of India, and there are sanatoria for British soldiers in the Hills.

### Administration.

Lieutenant-Governor, Sir J. S. Meston, K.C.S.I.;

Assumed charge of office, 16th September 1912.

Private Secretary, Capt. C. A. Watson Smyth

(1st Brahmins).

Aide-de-Camp, Capt. G. C. S. Black (8th Raj-

puts).

Honorary Aides-de-Camp, Major P. H. Clutter-

buck, Lieut.-Col. J. H. E. Beer, C.I.E., V.D.,

Lieut.-Col. J. Walker, V.D., Hon. Capt. Suba-

dar Major Kanhai Prasad Dubé.

### LEGISLATIVE COUNCIL OF THE LIEUTENANT-GOVERNOR.

President, The Lieutenant-Governor.

Vice-President, D. C. Bailie, C.S.I.

### Members.

H. H. Nawab Sir Muhammad Hamid Ali, Khan

Bahadur, G.C.I.E., G.C.V.O., Wall of Rampur.

Kunwar Aditya N. Singh, of Benares.

G. A. Tweedy.

Raja Sir Muhammad Tasadduk Rasul Khan,

K.C.S.I.

Nawab Mumtaz-ud-daula Sir Muhammad F.

Ali Khan, K.C.I.E., K.C.V.O., C.S.I., of Pahasu.

A. W. Pim.

F. W. Brownrigg.

R. Burn.  
 Rai Nathi Mal Bahadur.  
 Narsingh Prasad.  
 W. H. Cobb.  
 S. P. O'Donnell.  
 C. H. Hutton.  
 W. G. Wood.  
 Col. C. C. Manifold, I.M.S.  
 Lieut.-Col. C. MacTaggart, C.I.E.  
 C. F. de la Fosse.  
 D. M. Straight.  
 H. R. C. Hailey.  
 E. H. Ashworth.  
 F. Mackinnon.  
 Dr. Tej Bahadur Sapru.  
 Chaudri Mahara Singh.  
 Raja F. X. S. Rikhi.  
 Itana Sir Sheoraj Singh, K.C.I.E., of Thalral,  
 Mahadeo Prasad.  
 Dr. Sundar Lal, C.I.E.  
 Saiyid Muhammad Abdur Rauf.  
 Shankar Sahai Sahib.  
 Balak Ram.  
 Raja Kushalpal Singh.  
 Brij Nandan Prasad.  
 Moti Lal Nehru.  
 Gokul Prasad.  
 Maharaja Sir Bhagwati Prasad Singh, K.C.I.E.,  
 of Balrampur.  
 Moti Chand.  
 Khwaja Ghulam-us-Saqlain.  
 Saiyid Raza Ali.  
 Shalkh Shahid Husain.  
 Asghar Ali Khan.  
 Ganga Prasad Varma.  
 H. Ledgard.  
 Bishambhar Nath.  
 Sukhir Singh.  
 H. W. Pike.

SECRETARIAT

Chief Secretary to Government, R. Burn.  
 Financial Secretary to Government, A. W. Pim.  
 Judicial Secretary, S. C. O'Donnell.  
 Secretary to Government, Public Works Dept.  
 (Buildings & Roads, & Railways), W. G. Wood.  
 Secretary to Government, Public Works Dept.  
 (Irrigation), C. H. Hutton.  
 Registrars, F. E. Lowe, A. Grant, W. J. Summers.  
 F. C. Richardson.

#### BOARD OF REVENUE.

Members, D. C. Baillic, C.S.I., G. A. Tweedy.  
 Secretary, J. E. Goudge.

#### MISCELLANEOUS APPOINTMENTS.

Opium Agent, Ghazipur, H. M. R. Hopkins.  
 Director of Land Records and Agriculture, H. R.  
 C. Hailey.

Director of Public Instruction, C. F. de la Fosse.  
 Inspector-General of Police, D. M. Straight.  
 Inspector-General of Civil Hospitals, Col. C. C.  
 Manifold, I.M.S.  
 Sanitary Commissioner, Major S. A. Harriess, I.M.S.  
 Inspector-General of Registration, W. Raw.  
 Commissioner of Excise, C. E. Wild.  
 Accountant-General, K. B. Wagie.  
 Inspector-General of Prisons, Lt. Col. C. Mac-  
 taggart, C.I.E., I.M.S.  
 Postmaster-General, C. J. H. Hogg.  
 Chemical Analyser and Bacteriologist, E. H.  
 Hankin.

#### LIEUTENANT-GOVERNORS OF THE NORTH- WESTERN PROVINCES.

Sir C. T. Metcalfe, Bart., G.C.B. . . . 1836  
 The Right Hon. the Governor-General . . . 1838  
 in the North-Western Provinces (Lord  
 Auckland).

T. C. Robertson . . . . . 1840  
 The Right Hon. the Governor-General . . . 1842  
 in the North-Western Provinces (Lord  
 Ellenborough).

Sir G. R. Clerk, K.C.B. . . . . 1843  
 James Thomson, Died at Bareilly. . . . 1843  
 A. W. Begbie, In charge . . . . . 1853  
 J. R. Colvin. Died at Agra. . . . . 1853  
 E. A. Reade, In charge . . . . . 1857  
 Colonel H. Fraser, C.B., Chief Commis-  
 sioner, N.-W. Provinces. . . . . 1857

The Right Hon. the Governor-General  
 administering the N.-W. Provinces  
 (Viscount Canning). . . . . 1858

Sir G. F. Edmonstone . . . . . 1859  
 R. Money, In charge . . . . . 1863  
 The Hon. Edmund Drummond . . . . 1863  
 Sir William Muir, K.C.S.I. . . . . 1868  
 Sir John Strachey, K.C.S.I. . . . . 1874  
 Sir George Couper, Bart., C.B. . . . . 1876

#### LIEUTENANT-GOVERNORS OF THE NORTH- WESTERN PROVINCES AND CHIEF COMMIS- SIONERS OF OUDH.

Sir George Couper, Bart, C.B., K.C.S.I. 1877  
 Sir Alfred Comyns Lyall, K.C.B. . . . 1882  
 Sir Auckland Colvin, K.C.M.G., C.I.E. . . 1887  
 Sir Chas. H. T. Crosthwaite, K.C.S.I. . . 1892  
 Alan Cadell (Officiating) . . . . . 1895  
 Sir Antony P. MacDonnell, K.C.S.I. (a) . . 1895  
 Sir J. J. D La Touche, K.C.S.I. . . . . 1901  
 (a) Afterwards (by creation) Baron MacDonnell.

#### LIEUTENANT-GOVERNORS OF THE UNITED PROVINCES OF AGRA AND OUDH.

Sir J. J. D. La Touche, K.C.S.I. . . . . 1902  
 Sir J. P. Hewett, K.C.S.I., C.I.E. . . . . 1907  
 L. A. S. Porter, C.S.I. (Officiating). . . 1912  
 Sir J. S. Meston, K.C.S.I. . . . . 1912

## The Punjab.

The Punjab, or land of the five rivers, is so called from the five rivers by which it is enclosed, namely, the Jhelum, Chenab, Ravi, Beas and Sutlej. Together with the North-West Frontier Province and the Native State of Jammu and Kashmir which lie to the north, the Punjab occupies the extreme north-western corner of the Indian Empire, and with the exception of the above-mentioned province, comprises all of British India north of Sind and Rajputana and west of the river Jumna. Previous to October 1912, the Punjab with its feudatories embraced an area of 136,330 square miles and a population at the Census of 1911 of 24,187,750 (inclusive of 28,587 trans-

frontier Baluchis) that is to say, about one-thirteenth of the area and population of the Indian Empire. But the formation of a separate province of Delhi reduced the area and population of the Punjab by about 450 square miles and 380,000 souls respectively. Of the total area of the Punjab, 36,551 square miles are in Native States (34 in number) with a population of 4,212,794, and 2,566 square miles are tribal territory on the western border of Dera Ghazi Khan district with a population of 28,587.

#### Physical Features.

The greater part of the Punjab consists of one vast alluvial plain, stretching from the

Jumna in the east to the Suleman Range in the west. The north-east is occupied by a section of the Himalayas and the Salt Range forms its north-western angle. A few small spurs of the Aravalli mountain system traverse the extreme south-east and terminate in the Ridge at Delhi. The Punjab may be divided into five natural divisions. The Himalayan tract includes an area of 22,000 square miles, with a scanty population living scattered in tiny mountain hamlets. The Salt Range tract includes the districts of Attock, Rawalpindi and Jhelum and part of Shahpur district. Its physical configuration is broken and confused and the mountainous tracts of Murree and Kahuta approximate closely in characteristics to the Himalayan tract. Except in the hills, the rainfall leaves little margin for protection against distress in unfavourable seasons and irrigation is almost unknown. Skirting the base of the hills and including the low range of the Siwaliks, runs the narrow sub-mountain tract. This tract, secure in an ample rainfall, and traversed by streams from the hills, comprises some of the most fertile and thickly populated portions of the province. Its population of over four millions is almost wholly agricultural and pastoral but it includes one large town in Shalkot. Of the plains of the Punjab, the eastern portion covers an area of some 38,000 square miles with a population of 10½ millions. East of Lahore, the rainfall is everywhere so far sufficient that cultivation is possible without irrigation in fairly favourable seasons, but over the greater part of the area the margin is so slight that, except where irrigation is employed, any material reduction in the rainfall involves distress, if not actual famine. Within the eastern plains lie the large cities of Lahore and Amritsar, and the population in comparison with the western Punjab is largely urban. The western plains cover an area of 59,000 square miles, with a population of a little over six millions. The rainfall in this area, heaviest in the north and east and decreasing towards the west and south, is everywhere so scanty that cultivation is only possible with the aid of artificial irrigation or upon the low-lying river-banks left moist by the retreating floods. In this very circumstance, these tracts find their scarcity against famine, for there cultivation is almost independent of rain, a failure of which means nothing worse than a scarcity of grass. So little rain is sufficient, and absolute drought seems so seldom that the crops may be said never to fail from this cause. The western plains embrace the great colony areas on the Lower Chenab and Lower Jhelum Canals which now challenge the title of the eastern plains as the most fertile, wealthy and populous portions of the province. Multan and Lyallpur are the largest towns in the western area. Owing to its geographical position, its scanty rainfall and cloudless skies, and perhaps to its wide expanse of untilled plains, the climate of the Punjab presents greater extremes of both heat and cold than any other portion of India. The summer, from April to September, is scorchingly hot, and in the winter, sharp frosts are common. But the bright sun and invigorating air make the climate of the Punjab in the cold weather almost ideal.

### The People.

Of the population roughly one half is Mahomedan, three-eighths Hindu and one-eighth Sikh. Socially the landed classes stand high and of these the Jats numbering nearly five millions are the most important. Roughly speaking, one half the Jats are Mahomedan, one-third Sikh and one-sixth Hindu. In distribution they are ubiquitous and are equally divided over the five divisions of the province. Next in importance come the Rajputs who number over a million and a half. The majority of them are Mahomedans by religion, about a fourth are Hindus and a very few Sikhs. They are widely distributed over the province. Both Jats and Rajputs of the Punjab provide many of the best recruits for the Indian Army. The Gujars are an important agricultural and pastoral tribe, chiefly found in the eastern half of the province and in the extreme north-west. In organisation they closely resemble the Jats and are often absorbed into that tribe. There are many minor agricultural tribes, priestly and religious castes (Brahmans, Sayads and Kureshis), most of whom are landholders, the trading castes of the Hindus (Khatris, Aroras and Banias) and trading castes of the Mahomedans (Khojas, Parachas and Khakhias), and the numerous artisan and menial castes. There are also vagrant and criminal tribes, and foreign elements in the population are represented by the Baluchis of Dera Ghazi Khan and neighbouring districts in the west, who number about half a million and maintain their tribal system, and the Pathans of the Attock and Mianwali districts. Pathans are also found scattered all over the province engaged in horse-dealing, labour and trade. A small Tibetan element is found in the Himalayan districts.

### Languages.

The main language of the province is Punjabi, which is spoken by more than half the population. Western Punjabi may be classed as a separate language, sometimes called Labudi and is spoken in the north and west. The next most important languages are Western Hindi, which includes Hindustani, Urdu (the polished language of the towns) and other Hindi; Western Pahari, which is spoken in the hill tracts; and Rajasthani, the language of Rajputana. Baluchi, Pushto, Sindhi and Tibeto-Burman languages are used by small proportions of the population.

### Agriculture.

Agriculture is the staple industry of the province, affording the main means of subsistence to 56 per cent. of the population. It is essentially a country of peasant proprietors. About one-sixth of the total area in British districts is Government property, the remaining five-sixths belonging to private owners. But a large part of the Government land is so situated that it cannot be brought under cultivation without extensive irrigation. Thus the Lower Chenab Canal irrigates nearly 1,900,000 acres of what was formerly waste land and the Lower Jhelum Canal 390,000 acres, and the Lower Bari Doab Canal when completed will add considerably to this total. Large areas in the hills and elsewhere which

are unsuited to cultivation are preserved as forest lands, the total extent of which is about 8,700 square miles. Of the crops grown, wheat is the most important and the development of irrigation has led to a great expansion of the wheat area which now occupies in an average year over 8½ millions of acres. The average annual outturn of wheat is 3,000,000 tons, valued at present prices at approximately £20,000,000. Next in importance to wheat is gram, the average annual produce of which is a million tons valued at £5,000,000. Other important staples are barley, rice, millets, maize, oilseeds (rape, toria and sesamum), cotton and sugarcane. Cotton is grown generally throughout the province but the ravages of boll-worm have affected the popularity of the crop. The cotton grown is of the short stapled variety, known as 'Bengals'. The country being preponderantly agricultural, a considerable proportion of the wealth of the people lies in its live-stock. The latest cattle census gives the following figures:—cattle, nearly 8,000,000 head; buffaloes, about 850,000; bovine young stock, 3,800,000; sheep, 4,500,000, goats, 4,250,000. Large profits are derived from the cattle and dairy trades and wool is a staple product in the south-west in Kulu and Kangra and throughout the plains generally. The production of hides and skins is also an important industry.

### Industries.

The mineral wealth of the Punjab is small, rock salt, saltpetre, and limestone for road-building being the most important products. There are some small coal mines in the Jhelum district and gold-washing is carried on in most of the rivers, not without remunerative results. Iron and copper ores are plentiful but difficulties of carriage and the absence of fuel have hitherto prevented smelting on a large scale. The Punjab is not a large manufacturing country, the total number of factories being only 268 of which 202 are devoted to cotton spinning, cleaning and pressing. Cotton weaving as a domestic industry is carried on by means of hand looms in nearly every village. The Salvation Army has shown considerable enterprise in improving the hand-weaving industry. Blankets and woollen rugs are also produced in considerable quantities and the carpets of Amritsar are famous. Silk-weaving is also carried on and the workers in gold, silver, brass, copper and earthenware are fairly numerous and Ivory carving is carried on at Amritsar and Patiala. The trade of the province is steadily expanding, the total internal trade being valued at 57½ crores of rupees. The external trade with Afghanistan, Ladakh and Tibet is valued at 6½ lakhs.

### Administration.

The administrative functions of Government are performed by a Lieutenant-Governor, appointed by the Governor-General with the approval of the Crown. The Lieutenant-Governor in practice is always a member of the Indian Civil Service though military members of the Punjab Commission are eligible for the position. The Punjab Commission, the body which is responsible for the Civil administration of the province, is recruited from the Indian Civil Service and the Provin-

cial Civil Service. Up to the date of the separation of the North-West Frontier Province from the Punjab, one-fourth of the cadre was drawn from the Indian Army. The business of Government is carried on through the usual Secretariat which consists of three Secretaries, designated (1) Chief, (2) Revenue and (3) Financial Secretaries, and three Under-Secretaries. In the Public Works Department, there are also three Secretaries (Chief Engineers), one in the Buildings and Roads Branch and two in the Irrigation Branch. The heads of the Police and Educational Departments are also Under-Secretaries to Government. The Government spends the winter in Lahore and the summer (from the middle of May to the middle of October) in Simla. The Lieutenant-Governor has no Executive Council, but is assisted in legislative business by a Legislative Council of 24 members, of whom five are elected and 19 nominated by the Lieutenant-Governor. Of the nominated members, not more than ten may be officials, in addition there may be two nominated expert members. Under the Lieutenant-Governor, the province is administered by five Commissioners (for Ambala, Jullunder, Lahore, Rawalpindi and Multan) who exercise general control over the Deputy Commissioners—28 in number—each of whom is in charge of a district. A district on an average contains four tahsils, each consisting of about 300 villages. The Deputy Commissioner is usually a Covenanted Civilian or military member of the Punjab Commission, although the Deputy Commissionerships are "listed" for Provincial Civil Servants. The Deputy Commissioner has under him one or more Assistant Commissioners (Covenanted Civilians) and one or more Extra Assistant Commissioners (Provincial Civilians). In some cases, one or more tahsils form a subdivision under the charge of a sub-divisional officer who has wide powers. The tahsil is in charge of a Tahsildar, in some cases assisted by one or more Naib Tahsildars. The village is under a Lambardar or headman and in most districts the villages are grouped into zails, each under a zaildar. The lambardars and zaildars are "village officers" and not Government-servants. The "District Land Records and Excise staff, though organised for special departmental purposes, is available for general administrative work. The Native States of the province are arranged for the purposes of supervision into five groups, each under the charge of a Political Agent. Except in the case of the Sikh Phulkian States (Patiala, Jhind and Nabha) and Bahawalpur, the Political Agent is either the neighbouring Commissioner or Deputy Commissioner. The principal heads of Department in the province are the two Financial Commissioners (who are the highest Court of Revenue jurisdiction, and heads of the departments of Land and Separate Revenue and of Agriculture and the Court of Wards), the three Chief Engineers, the Inspector-General of Police, the Director of Public Instruction, the Inspector-General of Prisons, the Inspector-General of Civil Hospitals, the Sanitary Commissioner, the Conservator of Forests, the Director of Agriculture and Industries, the Inspector-General of Registration and the Legal Remembrancer. The Accountant-General, the Postmaster,

General, the Director of Telegraphs and the Agent, North-Western Railway, represent Imperial Departments under the Government of India.

### Justice.

The administration of justice is entrusted to a Chief Court, which is the final appellate authority in civil and criminal cases, and has powers of original criminal jurisdiction in cases where European British subjects are charged with serious offences and original civil jurisdiction in special cases. The Court sits at Lahore and is composed of a Chief Judge and four puisne judges (either Civilians or barristers), a sixth additional judge whose appointment is sanctioned for two years and a seventh additional judge whose appointment is sanctioned for one year. Owing to the accumulation of arrears of business a further increase in the permanent strength of the Court is only a question of time, and there is a strongly supported movement in the province in favour of raising the Court to the status of a High Court. Subordinate to the Chief Court are the Divisional and Sessions Judges (16 in number) each of whom exercises civil and criminal jurisdiction in a civil and sessions division comprising one or more districts. They hear most of the first appeals in Civil suits and try sessions cases and hear criminal appeals from the district and first class magistrates. The proposal has now been sanctioned to introduce the system which obtains in "Regulation" Provinces of District and Sessions Judges (22 in number) and to abolish the present Divisional judgeships. In the District, the District Judge's Court is the principal court of original jurisdiction and in this court are heard appeals in minor civil suits from the subordinate courts of the district. In many districts a Subordinate Judge exercising unlimited civil jurisdiction, is appointed to assist the District Judge but the majority of civil suits are tried in the first instance by Munsifs whose jurisdiction is limited to suits not exceeding Rs. 1,000 in value. The assistants to Deputy Commissioners are always invested with the powers of a Munsif, but the former practice of investing Tahsildars with Munsif's powers is being gradually discontinued. At Lahore, Amritsar and Simla there are Courts of Small Causes. The Deputy Commissioner is the District Magistrate and controls the subordinate Criminal Courts of the District. All the assistants of the Deputy Commissioner as well as the District and Subordinate Judges, but not the Munsifs, are invested with magisterial powers. Tahsildars usually exercise the powers of a second class magistrate and Naib Tahsildars those of the third class, and considerable assistance is obtained from Honorary Magistrates who sit either singly or as a bench. In districts in which the Frontier Crimes Regulation is in force the Deputy Commissioner on the finding of a Council of Elders (Jirga) may pass sentence up to four years' imprisonment. In all cases capital sentences require the confirmation of the Chief Court. Special Revenue Courts to decide all suits regarding the tenant right rents and cognate matters in which civil courts have no jurisdiction have been established under the Punjab Tenancy Act. The Financial Commissioners are the final court of appeal in revenue cases,

### Local Government.

Local control over certain branches of the administration is secured by the constitution of district boards exercising authority over a district and of municipalities exercising authority over a city or town. A few districts have local boards which exercise authority over a tahsil. These bodies are composed of members either nominated by Government or selected by the people and they are empowered to spend the funds at their disposal on schools and dispensaries, vaccination, sanitation, roads and rest houses and general improvements. The funds of district boards are derived mainly from a cess on the land revenue of the district supplemented by grants from Provincial Funds, and those of municipalities from octroi, local taxation and Government grants. In the smaller towns which are known as "notified areas", a simpler form of government than the municipal system is in force. Where the elective principle is in force as regards both district boards and municipalities, the public shows very little interest in the elections, except in a few cases where sectarian feeling runs high.

### Finance.

Under the present system of decentralisation in finance, the Imperial Government delegates to the Punjab Government the control of expenditure on the ordinary administrative services together with the whole or a certain proportion of certain heads of revenue sufficient to meet those charges. Of the various heads of revenue post office, telegraphs, railways, opium and salt are entirely Imperial. Land revenue, stamps, excise, income-tax and major irrigation works are divided between the Imperial and Provincial Governments in the proportion of one half to each. Minor irrigation works and some minor heads are divided in varying proportions, while the revenue from forests, registration, courts of law, jails, police and education are wholly provincial as well as the income of district boards and municipalities.

### Public Works.

As was stated in the section on "Administration" the Public Works Department is divided into two branches one for Buildings and Roads and the other for Irrigation. In the former branch, under the Chief Engineer, the province is divided into three circles under Superintending Engineers and 11 divisions under Executive Engineers, while the Simla Hydro-Electric division is under the superintending charge of the Sanitary Engineer. The King Edward Memorial at Lahore also constitutes a special division. The primary object of this branch is the construction and maintenance of Imperial and Provincial works, but it also assists municipalities and district boards. The Irrigation branch is under two Chief Engineers, one of whom is also Chief Engineer of Irrigation Works in the North-West Frontier Province. Under them are nine Superintending Engineers in charge of circles and 39 Executive Engineers in charge of divisions. In addition to the work of construction and maintenance Irrigation Officers are responsible for the assessment of water rates leviable on irrigated areas and in several

districts where the land revenue demand is assessed on the fluctuating principle, for the formulation of this demand on irrigated crops as well.

### Irrigation.

The canal system of the Punjab is admittedly one of the greatest achievements of British rule in India. Not including the enormous Triple Canal project now in process of completion, the total irrigated area in British districts and Native States amounts to 8,269,233 acres. The Beas is the only one of the great rivers of the province from which no canal takes off. The Indus provides supplies for two large series of inundation canals, one on either bank. Taking off from the Jhelum is the Lower Jhelum perennial canal, with 150 miles of main channel and 1,000 miles of distributaries and lower down the river is a large series of inundation canals. The Lower Chenab perennial canal takes off from the Chenab and comprises 427 miles of main channel and branches and 2,278 miles of branches, while below the junction of the Chenab and Ravi rivers is a series of inundation canals on both banks. The Ravi provides supplies for the Upper Bari Doab Canal, which has 370 miles of main line and branches and 1,571 miles of distributaries. Some small inundation canals and the Sidhani system, with a length of 200 miles also take off from the Ravi. The Sirhind Canal which has a main line and branches of 538 miles and distributaries amounting to 3,703 miles, takes off from the Sutlej, and there are two systems of inundation canals deriving their supplies from the Upper and Lower Sutlej respectively in addition to the Grey Canals maintained in the cooperative system in the Ferozepore district and a vast series of inundation canals in Bahawalpur State. The Western Jumna Canal which takes off from the right bank of the Jumna has a main line and branches of 377 miles and distributaries of 1,764 miles. The Triple Canal project is intended to carry surplus water from the Jhelum and the Chenab to supplement the scanty supplies in the lower reaches of the Ravi and incidentally to afford irrigation to the tracts through which the supply channels pass. The three canals included in the project are known as the Upper Jhelum, Upper Chenab and Lower Bari Doab Canals. Of these the Upper Chenab was opened in April 1912 and the Lower Bari Doab in April of this year and it is hoped that the Upper Jhelum will be ready for opening in April next year. The most interesting feature of this great work is the level crossing at Balloki, 40 miles from Lahore, where the Upper Chenab canal supply is passed across the Ravi into the Lower Bari Doab Canal. The revised estimate of the cost of the whole scheme is £8½ millions.

### Police.

The Police force is divided into district and Railway Police. The combined force is under the control of the Inspector-General, who is a member of the gazetted force and has under him three Deputy Inspector-Generals, for the Eastern (Ambala), Central (Lahore) and Western (Rawalpindi) Ranges respectively and a fourth Deputy Inspector-General in

charge of Railway Police, Criminal Investigation, the Police Training School and Finger Print Bureau at Phillaur. The Railway Police are divided into two districts, Northern and Southern, each under a Superintendent. The District Police are controlled by Superintendents, each of whom is in charge of a district, and has under him one or more Assistant Superintendents. The district is divided into circles under charge of Inspectors, and again into thanas in charge of a Sub-Inspector. The staff of a thana consists on an average of one Sub-Inspector, two head constables and 10 constables. A service of Provincial Police officers has also been established consisting of 18 Deputy Superintendents, who are employed as assistants to the Superintendents. The total police force of the province exclusive of gazetted officers, consists of 1,075 officers and 19,974 men, practically half of whom are armed with revolvers and bored out rifles. The village police or chaukidars are under the control of the Deputy Commissioner of each district not of the Police Superintendent. The cost of the Police Force is 58½ lakhs.

### Education.

Although the Punjab is usually considered rather a backward province, education has made great strides especially in the last ten years. Government maintain the Government College at Lahore, the Central Training College at Lahore, a Training Class for European teachers at Sanawar (Simla Hills), normal schools at the headquarters of each division, and High Schools at the headquarters of each district, and the Lawrence Military Asylum at Sanawar for European children. There are in the province nine arts colleges (one of them Oriental); 6 professional colleges for males and 2 for females; 1101 High Schools for boys and 16 for girls; 211 middle schools for boys and 36 for girls; 3,417 Primary Schools for boys and 637 for girls; 31 schools for special instruction for boys and 25 for girls. The number of pupils attending schools of all classes is 276,000 boys and 36,400 girls. The eleven arts colleges are:—The Government, Oriental, Forman Christian, Dayanand, Islamia and Dayal Singh Colleges at Lahore; Khalsa, Amritsar; Murray, Sialkot; Gordon, Rawalpindi. Professional education is represented by the Law, Medical and Veterinary Colleges at Lahore, the Agricultural College at Lyallpur, the Clerical and Commercial School at Amritsar, the Engineering School at Rasaul, the Mayo School of Art and the Railway Technical School, both at Lahore. There are eight Industrial Schools in the Province maintained by Municipalities or District Boards and others maintained by Missionary bodies, the Arya Samaj, etc., which receive grants-in-aid. The education of the domiciled community is provided for by a number of secondary boarding schools in hill stations and of primary schools in the plains. The aristocracy of the province is provided for by the Aitchison Chiefs' College for boys and the Queen Mary's College for girls, both at Lahore.

The Education Department is administered by the Director of Public Instruction who has under him an Inspector of Schools in each civil division with two or more assistants,

a District Inspector, with assistants, in each district, two Inspectresses of girls' schools and an Inspector of European schools. Higher education is controlled by the Punjab University (incorporated in 1882) which has the Lieutenant-Governor as *ex-officio* Chancellor, a Vice-Chancellor appointed by Government and a Senate. In addition to the nine arts colleges already mentioned and the Law and Medical Colleges at Lahore, St. Stephen's College, Delhi, and the Hindu College, Delhi, and six other colleges in Kashmir, Patiala, Bahawalpur, Kapurthala and the North-West Frontier Province are affiliated to the Punjab University.

### Medical.

The Medical Department is controlled by the Inspector-General of Civil Hospitals (a member of the Indian Medical Service) who also supervises the departments of the Chief Plague Medical Officer and the Chief Malaria Medical Officer. Sanitation is controlled by the Sanitary Commissioner (also a member of the Indian Medical Service) who has under him a Deputy Sanitary Commissioner and is advised by the Sanitary Board, with the Sanitary Engineer as Technical Adviser. Medical work in the districts is in charge of the Civil Surgeons, of whom fourteen are members of the Indian Medical Service and others Military Assistant Surgeons and unconvenanted Medical Officers, chiefly Civil Assistant Surgeons. The Mayo Hospital at Lahore and special railway, canal and police hospitals are maintained by Government, but the ordinary hospitals and dispensaries in the districts are maintained by municipal or district funds. Certain private institutions such as the Walker Hospital at Simla and many mission dispensaries receive grants-in-aid. The Mayo Hospital at Lahore is being greatly extended and improved as a memorial to King Edward VII. The total number of patients treated at all hospitals and dispensaries in the year is over four millions including nearly 75,000 in-patients. A temporary department to combat plague has been organised under the Chief Medical Plague Officer. In the districts the Civil Surgeons are generally in charge of the operations against plague, but additional officers are employed from time to time. There is only one lunatic asylum in the Province at Lahore, but there are ten leper asylums. The Pasteur Institute at Kasauli performs the functions of a provincial laboratory for the Punjab. Vaccination is supervised by the Sanitary Commissioner, but is more particularly the concern of the Deputy Sanitary Commissioner, who has under him a special staff. Civil Surgeons also have a local staff of vaccinators under them.

Lieutenant-Governor, Sir M. F. O'Dwyer, K.C.S.I.  
Assumed charge 1913.

### PERSONAL STAFF.

Private Secretary and Aide-de-Camp, Major E. C. Bayley, C.I.E., C.I.A.  
Aide-de-Camp, Lieut. Charles Offley Harvey.  
Honorary Aides-de-Camp, Lieut.-Col. W. T. Wright, Hon. Capt. Ali Gauhar Khan, Hon. Capt. Hira Singh.

### LEGISLATIVE COUNCIL.

President, The Lieutenant-Governor.  
Vice-President, A. H. Diack, C.V.O.

### MEMBERS.

#### Nominated.

Nawab Sir Bahram Khan, K.C.I.E.  
Sir H. P. Burt, K.C.I.E.  
J. C. Godley.  
Sir A. M. Ker, Kt., C.I.E., M.V.O.  
Mian Muhammad Shafi, Khan Bahadur.  
Sundar Singh, Majithia, Sardar Bahadur.  
M. W. Fenton, C.S.I.  
R. A. Mant.  
A. H. Diack, C.V.O.  
C. A. Barron, C.I.E.  
P. J. Fagan.  
S. W. Gracey.  
Sardar Daljit Singh.  
Khawajah Yusuf Shah, Khan Bahadur.  
Nawab Ibrahim Ali Khan of Kunjpura.  
J. P. Thompson.

#### Elected.

Lala Shadi Lal.  
J. Currie.  
Lala Kashi Ram of Ferozepore.  
Ram Saran Das of Lahore.  
Harl Chand of Multan.  
Gajjan Singh of Ludhiana.  
Bakhshi Sohan Lal of Lahore.  
Malik Muhammad Amin Khan of Shalissabad.  
Secretary, S. W. Gracey.

### SECRETARIAT.

Chief Secretary, C. A. Barron, C.I.E.  
Revenue Secretary, J. P. Thompson.  
Financial Secretary, R. A. Mant.  
Registrar, W. Burr-Bryan, I.S.O.

### PUBLIC WORKS DEPARTMENT.

#### Irrigation Branch.

Secretaries, R. E. Purves, F. E. Gwyther.  
Buildings and Roads Branch.  
Secretary, Col. R. S. MacLagan, C.B., C.S.I.  
R. E. (Offg.)

### REVENUE DEPARTMENT.

Financial Commissioners, A. H. Diack, C.V.O., M. W. Fenton, C.S.I.  
Director of Agriculture and Industries and Registrar of Joint Stock Companies, W. S. Hamilton.  
Director of Land Records, Inspector Genl. of Registration, and Registrar-General, B. T. Gibson.  
Director of Fisheries, G. C. L. Howell.

### MISCELLANEOUS APPOINTMENTS.

Director of Public Instruction, J. C. Godley.  
Inspector-General of Police, Sir E. L. French, K.C.V.O., H.A.  
Close (N. W. Frontier Province).  
Conservator of Forests, J. Copeland.  
Inspector-General of Civil Hospitals, Col. C. J. Bamber, M.V.O.  
Sanitary Commissioner, Lt.-Col. E. Wilkinson.  
Inspector-General of Prisons, Lt.-Col. G. F. W. Braide.  
Accountant-General, H. N. Heseltine.  
Postmaster-General, W. Maxwell, C.I.E., M.V.O.  
Registrar of Co-Operative Credit Societies, A. Langley.



## LIEUTENANT GOVERNORS OF THE PUNJAB.

Sir John Lawrence, Bart., G.C.B. . . . .	1859
Sir Robert Montgomery, K.C.B. . . . .	1859
Donald Friell McLeod, C.B. . . . .	1865
Major-General Sir Henry Durand, K.C.S.I., C.B., died at Tonk, January 1871.	1870
R. H. Davies, C.S.I. . . . .	1871
R. E. Egerton, C. S. I. . . . .	1877
Sir Charles U. Aitchison, K.C.S.I., C.I.E.	1882

James Broadwood Lyall . . . . .	1887
Sir Dennis Fitzpatrick, K.C.S.I. . . . .	1892
William Mackworth Young, C.S.I. . . . .	1897
Sir C. M. Rivaz, K.C.S.I. . . . .	1902
Sir D. C. J. Ibbetson, K.C.S.I., resigned 22nd January 1908.	1907
T. G. Walker, C.S.I., (offg.) . . . . .	1907
Sir Louis W. Dane, K.C.I.E., C.S.I. . . . .	1908
James, McCrone Douie (offg.) . . . . .	1911
Sir M. F. O'Dwyer, K.C.S.I. . . . .	1913

## Burma.

The Province of Burma lies between Assam on the North-West and China on the North-East, and between the Bay of Bengal on the West and South-West and Siam on the South-East. Its area is approximately 261,899 square miles of which 169,000 are under direct British Administration and 68,000 belong to independent or semi-independent Native States. The main geographical feature of the country is the series of rivers and hills running fan-like from North to South with fertile valleys in between widening and flattening out as they approach the Delta. On the West are the high hills of the Chin country, Manipur and Assam, and on the East the uplands of the Shan States. On the South are the hill ranges of Siam. The country is divided East and West by the Dry Zones which has most of the features of the highlands of India. South and North of these are the Wet Zones with a rich tropical vegetation. The climate of the Dry Zone resembles that of Behar, the temperature in May rising to 116°; the climate of the Wet Zones is moist but fairly equable. The magnificent rivers, the number of hilly ranges (Yomas) and the abundance of forests, all combine to make the scenery of Burma exceedingly varied and picturesque.

## The People.

The total populations of Burma at the census of 1911 was 12,115,217. Of this total, 7,642,204 are Burmans, 996,420 Shans, 919,641 Karens, 239,953 Kachins, 306,486 Chins, 344,123 Arakanese and 320,829 Talangs. There is also a large alien population of Chinese 108,877 and Indians about 600,000, while the European population is 24,355.

The Burmans who form the bulk of the population belong to the Tibetan group and their language to the Tibeto-Chinese family. They are essentially an agricultural people. 80 of the agriculture of the country being in their hands. Their chief concern is with their fields and their pagodas. As long as they are left in peaceful enjoyment of these, they are apparently indifferent as to the Government of the country. In appearance the Burman is usually somewhat short and thick-set with Mongolian features. His dress is most distinctive and exceedingly comfortable. It consists of a silk handkerchief bound round his forehead, a loose jacket on his body and a long skirt-loongyi tied round his waist, reaching to his ankles. The Burman woman, perhaps the most pleasing type of femininity in the East, lead a free and open life, playing a large

part in the household economy. Their dress is somewhat similar to the man's minus the silk kerchief on the head and the loongyi is tucked in at the side instead of being tied in front. A well dressed and well groomed Burmese lady would, for grace and neatness, challenge comparison with any woman in the world.

## Communications.

The Irrawaddy and to a less extent the Chindwin afford great natural thoroughfares to the country. At all seasons of the year these rivers, especially the Irrawaddy, are full of sailing and steam craft. In the Delta, the net-work of water ways are indeed practically the only means of communication. The Irrawaddy Flotilla Company, with a fine fleet of mail cargo and ferry boats, gives the Irrawaddy and the Delta rivers and creeks a splendid river service.

The Burma Railways Company has a length of 1,523 miles open line. The principal lines are from Rangoon to Mandalay; from Sagaing to Myitkyina, the most northern point in the system; the Rangoon-Prome line, and the Pegu-Martaban line which serves Moulmein on the further bank of the Salween River. An important branch line runs from Thazi on the main line across the Melkita and Myingyan Districts to Myingyan Town on the Irrawaddy. Another branch goes from Sagaing on the Irrawaddy to Aloon on the Chindwin. A small branch on the Sagaing-Myitkyina line runs from Naba to Katha on the Irrawaddy. A branch on the right bank of the Irrawaddy runs from Bassein to Kyangh. An important line, the Southern Shan States Railway, is under construction. It leaves the main line at Thazi and will run due East along the uplands to Yawnghe, the principal town on the rich valley of the Nam Pliu.

The length of metalled roads is 2,010 miles and of unmetalled roads 10,311. The number of roads for a rich province like Burma is quite inadequate. One of the most urgent needs of the Province is a very generous extension of roads both metalled and unmetalled.

## Industry.

Agriculture is the main industry of the Province, 71.63 per cent. of the population being engaged in it. The net total cropped area was in 1911-12, 134 million acres. The bulk of the crop is paddy of which a surplus of 2,408,525 tons was exported in 1911. Paddy forms 63.75 per cent. of the total exports of the Province. Over 34,000 bales of cotton were

exported. The outturn of groundnut in 1911 was 48,000 tons. Sesamum and wheat are also produced.

Forests play an important part in the industrial life of the Province. The total area of reserved and unclassified forests is 137,353 square miles. Wood is extracted by lessees, of whom the Bombay-Burma Trading Corporation and Messrs. Steel Brothers are the principal. In 1911-12 Government extracted 43,000 tons of teak, while purchasers extracted 210,000 tons.

A third important branch of industry consists of working in mines and quarries in which Burma is particularly rich. The petroleum fields are in the Dry Zone, chiefly at Yenangyaung in the Magwe District where the principal extractor is the Burma Oil Company. The total output of petroleum for the Province in 1911-12 was 222 million gallons. In the Ruby Mines District, the Burma Ruby Mines Company at Mogoke extracted rubies to the value of Rs. 9.65 lakhs. Sapphires and spinels worth Rs. 29,000 and Rs. 10,500 were also found. 6,390 ounces of gold was won by the Burma Gold Dredging Company from the bed of the Irrawaddy River, north of Myitkyna.

The Burma Mines Company at Badwin in the Northern Shan States produced 31,954 tons of lead slag, valued at Rs. 10.24 lakhs and 3,218 tons of silver lead ore valued at Rs. 72,165. Tavoy and Mergui Districts produced 16,963 cwt. of Wolfram valued at Rs. 8.69 lakhs. The Tawhau Mines of the Myitkyna District produced 2,062 cwt. of jade, valued at Rs. 1.72 lakhs.

The rubber industry is still in its infancy, only 10 plantations employing more than 20 persons. The plantations are situated in the Mergui, Amherst, Hanthawaddy and Toungoo Districts. At the Census of 1911, 4,047 people were returned as engaged in the production of rubber. The total quantity exported in 1911-12 was 310,240 lbs. The production advanced from 114,464 lbs. in 1910-1911 to 282,240 lbs. in 1911-12 valued Rs. 8.75 lakhs. The prospect of rubber in this Province is very promising. Well managed estates have proved that the products of rubber in Burma is a success. Rubber is grown on ground unsuitable for paddy and the area available is very considerable.

#### Manufacturers.

Out of a total of 307 factories, 165 are engaged in milling rice. Of the rest 88 are Saw Mills. At the Census of 1911, 469,743 or only 6.6 of the total population were engaged outside agriculture and production.

As is the case in other parts of the Indian Empire, the imported and factory made article is rapidly ousting the home made and indigenous. But at Amarapura in the Mandalay District a revival is being made of hand silk-weaving. Burman wood carving is still famous and many artists in silver still remain the finish of whose work is sometimes very fine. Bassein and Mandalay parasols are well known and much admired in Burma. But perhaps the most famous of all hand-made and indigenous industries is the lacquer work of Pagan with its delicate patterns in black, green and yellow traced on to a ground work of red lacquer over

bamboo. Lacquered articles ranging from those of the most exquisite finish to those of a coarse description are produced at Pagan on the Irrawaddy and are sold throughout the length and breadth of Burma.

#### Trade.

The total value of the foreign trade was Rs. 3,766 lakhs, exports being Rs. 2,541 lakhs. Rangoon is *adve princeps* in the trade of the Province, accounting for 82.31 per cent. of the total, at a value of Rs. 4,806 lakhs. The net Customs duty was Rs. 184 lakhs.

The most important item of merchandise imported into Rangoon is manufactures of cotton, which account for 31.10 per cent. of the total import trade. These imports are valued at Rs. 355.68 lakhs. The United Kingdom possesses 84 per cent. of the total import trade.

#### Administration.

In 1897 the Province which had formerly been administered by a Chief Commissioner was raised to a Lieutenant-Governorship. The head of the Province is therefore now the Lieutenant-Governor. He has a Council of fifteen members, one of whom is elected by the Burma Chamber of Commerce and the remaining fourteen are nominated by the Lieutenant-Governor. Not more than six members may be official: the rest must be non-officials and at least four must be selected from the Burmese population, one from the Indian and one from the Chinese community.

Burma is divided administratively into Upper Burma (including the Shan States and Chin Hills) and Lower Burma. The Shan States are administered by the Chiefs of the States, subject to the supervision of the Superintendents in the case of the Northern and Southern Shan States, and to the supervision of the Commissioners of the adjoining Divisions in the case of the other States. The Civil, Criminal and Revenue administration is vested in the Chief of the State subject to the restrictions contained in the sanad. The law administered is the customary law of the State.

The Chin Hills are administered by a Superintendent.

Under the Lieutenant-Governor are eight Commissioners of divisions, four in Upper and four in Lower Burma. Commissioners in Upper Burma and the Commissioner of the Arakan Division are ex-officio Sessions Judges, but the other three Commissioners have been relieved of all judicial work.

Under the Commissioners are 39 Deputy Commissioners including the Police officers in charge of the Hill Districts of Arakan and the Salween District, who exercise the powers of Deputy Commissioner. Deputy Commissioners are also District Magistrates, Collectors, and Registrars, except in Rangoon where there is both a District Magistrate and a Collector. Subordinate to the Deputy Commissioner are Assistant Commissioners, Extra Assistant Commissioners and township officers, called Myooks. In the villages are the village headmen, thuglys, assisted in Lower Burma by the Seelgaungs (rural policemen in charge of ten houses.) The revenue administration is controlled by a Financial Commissioner

assisted by two Secretaries. Subordinate Departments are in charge of a Commissioner of Settlements and Land Records, a Director of Agriculture, a Superintendent of the Civil Veterinary Department and a Registrar of Co-operative Credit Societies.

### Justice.

The administration of Civil and Criminal Justice is under the control of the Chief Court of Lower Burma with five judges, and of the Judicial Commissioner, Upper Burma, with an Assistant Judicial Commissioner. There are six Divisional and eight District Judges. There are also separate Provincial and Subordinate Judicial Services. Divisional Judges are also Sessions Judges. The Chief Court at Rangoon is the highest Civil Court of appeal and the highest court of Criminal appeal and revision in Lower Burma. It is also the High Court for the whole of Burma (including the Shan States) where European British subjects are concerned. It is the principal Civil and Criminal Court of original jurisdiction for Rangoon Town and hears appeals from all sentences of Courts and magistrates exercising jurisdiction in Rangoon Town.

In Criminal and Civil matters the Judicial Commissioner, Upper Burma, exercises the power of a High Court for appeal, reference and revision, except in respect of criminal cases in which European British subjects are concerned.

All village headmen have limited Magisterial powers and a considerable number are also invested with civil jurisdiction to a limited extent.

### Municipalities.

The Rangoon Municipality is the most important, with an income of Rs. 40.65 lakhs and an expenditure of Rs. 36.58 lakhs. The Chairman is a member of the Indian Civil Service, of Deputy Commissioner's rank. The members of the Committee are elected by wards.

There are 45 minor Municipalities of which the most important are those at Mandalay and Moulmein. The average incidence of Municipal taxation is Rs. 2-4-7.

### Local Funds.

No Local Boards nor District Boards exist in Burma. In their place in Lower Burma, there are District Cess Funds, derived mostly from a 10 per cent. cess on collections of ordinary local revenue and from collections from markets, ferries, slaughter houses, etc. The total receipts amount to over 31 lakhs.

In Upper Burma, there are District Funds. They are derived from market, ferry and license fees and occasional grants from Provincial revenues. The total revenue was over 7 lakhs.

There are 7 Cantonment Funds, 17 Town Funds and, excluding the Rangoon Port Trust, 6 Port Funds.

### Finance.

As in the case of all other Provinces, the finances of Burma are based on a "Provincial Settlement." In the case of Burma, it came into force on the 1st April 1907 and the Government of India retains in the first place the entire profits of the commercial departments, such as Posts and Telegraphs, and in the second place, all the revenue where the

'locale' is no guide to its true incidence, such as the net receipts from Customs, Salt and Opium. But as the income from these sources is inadequate for the purpose of meeting the cost the Imperial Services, special arrangements are made as with other Provinces for the division of the remaining sources of revenue between Imperial and Provincial Funds.

In 1910-1911, as a result of the Report of the Decentralisation Committee, modifications were introduced into the Settlement. Briefly, the Local Government, retaining 5-8ths of the net Land Revenue instead of a half and the whole of the net Forest revenue. The following figures show the gross revenue and expenditure for 1911-12:-

	Receipts. Rs.	Expenditure. Rs.
Imperial ..	381.41 lakhs	66.44 lakhs
Provincial ..	516.24 "	528.84 "
Local Funds ..	38.40 "	35.49 "
Municipalities ..	98.47 "	90.56 "
Other Funds ..	100.20 "	97.82 "

The Imperial Government makes fixed assignments of approximately Rs. 40 lakhs to the Burma Government.

### Public Works.

This Department is administered by two Chief Engineers who are also Secretaries to Government in the Public Works Department. There are 7 Superintending Engineers (including one for Irrigation and a Sanitary Engineer), 83 Executive Engineers and Assistant Engineers. A Consulting Architect is attached to Head Quarters.

There are four Major Irrigation Works—Mandalay, Shwabo and Mon Canals. The Ye-U canal in the Shwabo District is under construction.

### Police.

The Police Force is divided into Civil Military and Rangoon Town Police. The first two are under the control of the Inspector-General of Police: the latter is under the orders of the Commissioner of Police, Rangoon, an officer of the rank of Deputy Inspector-General.

There are three other Deputy Inspectors-General, one for the Eastern and Western Range and one for the Military Police.

The Civil Police Force numbered at the end of 1911, 1,343 officers and 12,971 men. The strength of the Military Police on the 1st January 1912 was 15,941 officers and men. The Rangoon Town Police stand at 79 officers and 1,009 men.

A special feature of Burma is the Military Police. Its officers are deputed from the Indian Army. The rank and file are recruited from natives of India with a few Kachins, Karens and Shans. The organisation is Military, the force being divided into Battalions. The object of the force is to supplement the regular troops in Burma. Their duties, apart from their Military work, is to provide escorts for specie, prisoners, etc., and guards for Treasuries, Jails and Courts.

### Education.

At the head is the Director of Public Instruction with an Assistant Director. There are 6 Inspectors of Schools belonging to the Im-

perial and one belonging to the Provincial Service, and 7 Assistant Inspectors belonging to the Provincial Service. The Rangoon College is staffed by a Principal and five Professors drawn from the Imperial Service. Outside the Education Department is the Educational Syndicate whose aim is to promote education throughout the Province.

Burma has no University, but it has two Colleges, the Rangoon College and the Baptist College which are affiliated to the Calcutta University. Under Government there are—

An Arts College, Law School, Reformatory School, School of Engineering, Apprentice School, High School for Europeans, High School at Taunggyi for the sons of Shan Chiefs, 5 Normal Schools, 8 Anglo-Vernacular High Schools, 18 Anglo-Vernacular Middle Schools, and 28 Vernacular Middle Schools.

A remarkable feature of education in Burma system of elementary education evolved, generations ago, by the genius of the people. Nearly every village has a monastery (hpoongyi-kyauing); every monastery is a village school and every Burman boy has, according to his religion, to attend that school, shaving his head and for the time wearing the yellow robe. At the hpoongyi-kyauings the boys are taught to read and write and an elementary and native system of arithmetic. The result is that there are very few boys in Burma who are not able to read and write and the literacy of Burman men is 412 per mille.

Another feature of education in Burma is the excellent work of the American Baptist Mission which has established schools in most of the important towns in Burma, as well as a College in Rangoon.

### Medical.

The control of the Medical Department is vested in an Inspector-General of Civil Hospitals. Under him are 41 Civil Surgeons. There is also a Sanitary Commissioner, a Deputy Sanitary Commissioner, an Inspector-General of Prisons, three whole time Superintendents of Prisons, a Chemical Examiner and Bacteriologist and Superintendent of the Lunatic Asylum.

A Civil Surgeon is in charge of each District while at the Summer Head Quarters of Maymyo, there is a special Civil Surgeon.

The total number of hospitals and Dispensaries is 264 at the end of 1911-12. The Rangoon General Hospital is perhaps the finest in the East.

The total number of patients treated in 1911 was 1,652,501.

### Administration.

*Lieutenant-Governor*, Sir Harvey Adamson, Kt., K.C.S.I., LL.D., *Assumed charge, 19th May 1910.*

*Private Secretary*, Lieut. G. C. Slacko.

*Aides-de-Camp*, Lieut. N. H. Hutcheson, 1st Royal Irish Rifles; Lieut. J. Shaw.

*Honorary Aides-de-Camp*, Major H. Des. Voeux, C.I.E., I.A.; Major E. J. Foucar, V.D.

*Indian Aides-de-Camp*, Hony. Capt. Muzaffar Khan, *Sardar Bahadur*; Subadar-Major Amar Singh, *Rai Bahadur*.

### LEGISLATIVE COUNCIL OF THE LIEUTENANT-GOVERNOR. Officials.

H. L. Eales.  
W. F. Rice, C.S.I.  
E. Higginbotham.  
W. J. Keith.  
Major H. Des Voeux, I.A.

#### Non-Officials.

Merwanjee Cowasjee.  
Lim Chin Tsong.  
Sao Mawng, C.I.E.  
Mirza Abdul Hussain, Khan Bahadur.  
Maung Mye.  
Maung Pe.  
Maung Tun Myat.  
F. D. Stewart.  
B. J. B. Stephens.

#### SECRETARIAT.

*Chief Secretary*, W. F. Rice, C.S.I.  
*Revenue Secretary*, R. E. V. Arbuthnot.  
*Secretary*, W. J. Keith.  
*Secretary, P.W.D. and Chief Engineer*, F. St. G. Manners-Smith, C.I.E.  
*Joint Secretary, P.W.D.*, R. P. Russell (*offg.*).  
*Financial Commissioner*, Sir F. C. Gates, K.C.I.E., C.S.I.  
*Senior Registrar*, E. A. C. Walker, I.S.O.

#### Miscellaneous Appointments.

*Settlement Commissioner and Director of Land Records*, H. M. S. Matthews, C.S.I.  
*Director of Agriculture*, J. MacKenna.  
*Consulting Architect*, H. S. Morris.  
*Superintendent and Political Officer, Southern Shan States*, R. F. Greer.  
*Superintendent and Political Officer, Northern Shan States*, H. A. Thornton.  
*Director of Public Instruction*, J. G. Covernton.  
*Inspector-General of Police*, Lt.-Col. H. Parkin, C.I.E.  
*Chief Conservator of Forests*, C. G. Rogers.  
*Inspector-General of Civil Hospitals and Sanitary Commissioner*, Col. H. C. St. Carruthers.  
*Sanitary Commissioner*, Lt.-Col. C. E. Williams.  
*Inspector-General of Prisons*, Lt.-Col. G. H. J. Bell.  
*Commissioner of Excise*, Major W. R. Stone.  
*Chief Customs Authority*, Sir F. C. Gates, K.C.I.E., C.S.I.  
*Accountant-General*, H. A. Sams.

#### Chief Commissioners of Burma.

Lieut.-Colonel A. P. Phayre, C.B.	..	1862
Colonel A. Fytche, C.S.I.	..	1867
Lieut.-Colonel R. D. Ardagh	..	1870
The Hon. Ashley Eden, C.S.I.	..	1871
A. R. Thompson, C.S.I.	..	1875
C. U. Aitchison, C.S.I.	..	1878
C. E. Bernard, C.S.I.	..	1880
C. H. T. Crosthwaite	..	1883
Sir C. E. Bernard, K.C.S.I.	..	1886
C. H. T. Crosthwaite, C.S.I.	..	1887
A. P. MacDonnell, C.S.I. (a)	..	1889
Alexander Mackenzie, C.S.I.	..	1890
D. M. Smeaton	..	1892
Sir F. W. R. Fryer, K.C.S.I.	..	1895

(a) Afterwards (by creation) Baron MacDonnell.

#### Lieutenant-Governors of Burma.

Sir F. W. R. Fryer, K.C.S.I.	..	1897
Sir H. S. Barnes, K.C.S.I., K.C.V.O.	..	1903
Sir H. T. White, K.C.I.E.	..	1905
Sir Harvey Adamson, Kt., K.C.S.I., LL.D.	..	1910

## Bihar and Orissa.

Bihar and Orissa lies between 19°-02' and 27°-30' N. latitude and between 82°-31' and 88°-26' E longitude and includes the three provinces of Bihar, Orissa and Chota Nagpur, and is bounded on the north by Nepal and the Darjeeling district of Bengal; on the east by Bengal; on the south by the Bay of Bengal and Madras; and on the west by the United Provinces of Agra and Oudh and the Central Provinces.

The area of the British territories which constitute the Lieutenant-Governorship of Bihar and Orissa is 83,181 square miles inclusive of the area of large rivers. In addition to the districts which are directly under British rule, there are two groups of petty estates which lie to the south and south-west of the Province and which under the names of the Tributary States of Orissa and the Political States of Chota Nagpur are governed each by its own Chief under the superintendence and with the advice of the Commissioner of the nearest British Administrative division. The area of these territories is 28,648 square miles and as it is usual to include them when speaking of Bihar and Orissa the area of the whole Province may be stated at 111,829 square miles. Two of the provinces of the Lieutenant-Governorship of Bihar and Orissa, viz., Bihar and Orissa, consist of great river valleys, the third, Chota Nagpur, is a mountainous region which separates them from the Central Indian Plateau. Orissa embraces the rich deltas of the Mahanadi and the neighbouring rivers and is bounded by the Bay of Bengal on the south-east and walled it on the north-west by Tributary Hill States. Bihar lies on the north of the Province and comprises the higher valleys of the Ganges from the spot where it issues from the territories of the Lieutenant-Governor of the United Provinces of Agra and Oudh. Between Bihar and Orissa, but stretching further westward and deep into the hill country, lies Chota Nagpur.

### The People.

The Province has a population of 38,435,293 persons which is very little less than that of France and rather more than that of the Bombay Presidency. The province is almost entirely rural, no fewer than 966 per mille of the population living in villages. Even so with 344 persons per square mile, Bihar and Orissa is more thickly populated than Germany. There are only three towns which can be classed as cities namely, Patna, Gaya and Bhagalpur. During the last thirty years the population of Patna, the capital designate, has been steadily diminishing. Hindus form an overwhelming majority of the population. Though the Muhammadans form less than one-tenth of the total population they constitute more than one-fifth of urban population of the province. Animists account for 7 per cent. These are inhabitants of the Chota Nagpur plateau and the Santal Parganas.

### Industries.

The principal industry is agriculture; Bihar more especially North Bihar, being the "Garden of India." Rice is the staple crop but the spring crops, wheat, barley, oats and the like are of considerable importance. It is estimated that the normal area cultivated with rice in this

Province is 17,200,000 acres or 63 per cent. of the cropped area of the Province. Wheat is grown on about 1½ million acres, barley on 1,428,200 acres, maize or Indian-corn on 1,769,300 acres the latter being an autumn crop. Oilseeds are an important crop, the cultivation having been stimulated by the demand for them in Europe. The exports in various kinds of oilseeds amounted to 5,758,390 maunds valued at Rs. 3,58,63,482. It is estimated that 2,021,300 acres of land are annually cropped with oil-seeds in the Province. There is irrigation in Gaya, Champaran and Muzaffarpur districts in Bihar and in Balasore and Cuttack in Orissa. The Indigo industry has been steadily on the decline during the last twenty years, the total areas sown having decreased from 342,000 acres in 1896 to 109,600 acres in 1911. The principal cause of this has been the discovery of the possibilities of manufacturing synthetic or chemically prepared indigo on a commercial scale, a process chiefly carried out in Germany. All the districts of Bihar with the exception of Purneah are liable to famine. The last serious famine was in 1895-96. In any year in which monsoon currents from either the Bay of Bengal or the Arabian Sea are unduly late in their arrival or cease abruptly before the middle of September the agricultural situation is very grave. It may be said that for Bihar the most important rainfall is that known as the *hatia*, due towards the end of September or up to middle of October. Rain at this time not only contributes materially to an increased outturn of the rice crop, but also provides the moisture necessary for starting the spring or *rabi* crops.

### Manufactures.

Opium was formerly with indigo the chief manufactured product of Behar but in consequence of the recent agreement with the Chinese Government the Patna Factory has been closed. At Monghyr the Peninsular Tobacco Company have erected one of the largest cigarette factories in the world and as a result tobacco is being grown much more extensively. There are two important iron works in the Singhbhum District, Messrs. Tata & Co.'s Iron and Steel Works at Sakchi and the Bengal Iron and Steel Company at Dhuia. Both these works possess considerable economic possibilities and are likely to have a far reaching effect on the iron and steel trade of India in the future. By far the most important of the mineral industries in the province is that concerned in the raising of coal. The collieries in the Manbhum District have undergone an extraordinary development in the past twenty years. Though the limits of the district include a portion of the Raniganj field, its fame as a coal-producing area is now identified practically with the Jharia field. The importance of the industry may be said to date from the opening of the railway from Barakar to Dhanbaid and Katras in 1894, and from Kusunda to Pathardi in 1895. In 1894 the outturn of all the mines in the district was only 128,686 tons; in 1895 it rose to 1,281,294 tons the enormous increase being almost entirely from the Jharia field. In the two succeeding years there was a set back, but from 1898 there was a steady rise in the outturn which first touched two million tons in 1901. In 1905 the outturn had swelled to nearly three million tons

and in 1900 nearly four millions; in 1907 over 5,800,000 tons were raised and in the following year no less than seven million tons. The Jharia field is, of course, the one which accounts for the bulk of the increase in output, but there has also been a very considerable expansion in the Raniganj field and many new mines have been opened out. The entrance of the Bengal Nagpur Railway in the Jharia field in 1904, and the subsequent extension of various small loops and branches, besides innumerable sidings from both systems, the doubling of the line from Barakar to Dhanbaid, the opening of the section of the East Indian Railway of the Grand Chord from Dhanbaid to Gomoh have all contributed to this rapid development. The tendency, however, which was manifest in 1907 and 1908 to open out new collieries has been checked. From two concerns representing half a dozen mines in 1891, the number of collieries has grown to 251 in 1911, 196 in the Jharia and 55 in the Raniganj field producing respectively, 6½ million and 450,000 tons annually, just about double the output of the Burdwan mines in the same year, and nearly seven-twelfths of the total output of British India. Giridih in Hazaribagh is also the centre of a considerable coal-mining industry, containing, as it does, mines owned and worked by the East Indian Railway Company. In 1911 the output was 700,000 tons. The Bokaro-Ramgarh field in the same district is likely to be of great economic importance as soon as the area is fully opened up by the railway now under construction. It immediately adjoins the Jharia field across the Hazaribagh border. There is a large undeveloped coal supply, it is believed, in the Districts of Palaman and Hazaribagh.

#### Administration.

The Province is administered by a Lieutenant-Governor in Council. The Lieutenant-Governor is appointed by the Crown and is a senior member of the Indian Civil Service. He is assisted by a Council of three members, two of whom are drawn from the Indian Civil Service while the third, in practice, is an Indian. Each member takes charge of departments and in the event of any difference of opinion regarding inter-departmental references the matter is decided in Council. In practice all important cases are submitted through the member concerned to the Lieutenant-Governor.

The unit of executive administration is the District. The District Officer is styled District Magistrate and Collector, except in the Scheduled districts where he is known as the Deputy Commissioner. The ordinary district jails are placed in charge of a Superintendent, usually the Civil Surgeon while the Magistrate pays periodical visits of inspection. All District Officers are *ex-officio* Registrars; and as *ex-officio* Chairman of the District Boards, they have control over elementary education, and are charged with the execution and administration of all local public works. In a word, the District Officer is the executive chief and administrator of the tract of country committed to him. As District Magistrate he is also local head of the magistracy who tries all cases, except the more important which are sent for trial at the Sessions, but except in the Scheduled districts he seldom presides in Court, and his share in this

part of the administration is practically confined to the distribution of work, the hearing of petty appeals and the general superintendence of his subordinates. The latter combine revenue with their magisterial functions and as Deputy Collectors exercise under his control many of the powers of a Collector. The police, by whose aid he carries on the criminal administration, have as their local superior a Superintendent, who in all matters, except those concerning the discipline and internal economy of the force, has to carry out such instructions as he receives from the District Magistrate. The Subdivisional Officers, who are Joint, Assistant and Deputy Magistrates in charge of divisions of districts, occupy, to a great extent, in their own jurisdictions, the position of the District Officer, except in respect of the police, over whom they have only judicial and no executive control.

Above the District Magistrates are the Divisional Commissioners. Their duties are principally those of supervision. In almost all matters they exercise a general superintendence, and especially in the Revenue Department they control the Collectors' proceedings. Commissioners are the channels of communication between the local officers and Government, sifting, collating and bringing together, in a compact form the information they receive. In revenue matters the Commissioner forms a Court of appeal and in this and other respects is subject to the orders of the Board of Revenue. With this exception he is in subordination to Government direct.

The Civil Secretariat consists of the Chief Secretary, who is in charge of the Judicial, Political, Appointment and Education Departments; the Revenue Secretary, the Financial and Municipal Secretary and their three Under Secretaries.

#### Finance.

The Province of Bihar and Orissa was formed with five divisions, detached from the old province of Bengal with effect from the 1st April 1912. The old arrangements made with the Government of Bengal regarding the financial administration of the Province therefore ceased to apply from that date. A fresh arrangement has, however, been made, with the approval of the Secretary of State. As the method adopted was in some measure tentative and provisional, a temporary settlement for a period of three years only has been effected. It is expected that after the expiry of this period, it will be possible to gauge the needs of the province more accurately, so as to make a permanent arrangement possible. Under the terms of this settlement the whole of the receipts under the heads of Provincial Rates, Forest, Registration, Courts of Law, Jails, Police, Ports and Pilotage, Education, Medical have been made over entirely to the local Government together with their corresponding charges. In addition to these, it receives three-fourths of the receipts from stamps, assessed taxes, major and minor irrigation works, the whole of the Land Revenue collected from Government Estates, one-half of the receipts under all other sub-heads excepting recoveries from zamindars and raiyats on account of survey and settlement in Bihar and other similar special surveys and the whole of the receipts under Scientific and other Minor Departments.

The only expanding items of revenue are Excise and Stamps. The Provincial Budget for 1913-14 shows an opening balance of Rs. 1,96,31,000. Receipts Rs. 2,85,56,000. Expenditure—Rs. 3,81,65,000 and the closing balance Rs. 1,50,22,000.

### Public Works.

The Public Works Department in the Province of Bihar and Orissa, consists of two branches, viz:—(1) Roads and Buildings, which also deals with Railways and Miscellaneous Public Improvements and (2) Irrigation and Marine. Each branch has a Chief Engineer, who is also Secretary to the Local Government with an Engineer Officer as Under Secretary under him. There is also a non-professional Assistant Secretary, a Consulting Architect and a Sanitary Engineer, who works under the Sanitary Board. The electrical work of the Province is carried out by an Electrical Inspector and a staff of subordinates.

The Roads and Buildings branch consists of two Circles under the superintendence of two Superintending Engineers who control the Public Works Divisions held by the Executive Engineers for the execution of Imperial and Provincial works. The Superintending Engineers are also the Inspectors of Works under the Local Self Government Act, in respect of all local works of the District Boards and, in this capacity, are the professional advisers of the Chairman and of the Divisional Commissioners who control the operation of such Boards. They also supervise all works carried out by District Boards.

The Irrigation branch is composed of three Circles, each of which is held by a Superintending Engineer. In the Irrigation Circles, the Executive Engineers carry out the works of the Roads and Buildings Branch, within the limits of their divisions, in addition to their irrigation duties. The Superintending Engineers of Irrigation Circles also act as Inspectors of Works in regard to local works in the districts in their Circles. In the Sone and Orissa Circles there are two Revenue Divisions under Deputy Collectors who deal with the assessment and collection of water-rates on the Orissa and Sone Canals under the control of the Superintending Engineers.

### Justice.

The administration of justice is at present entrusted to the High Court sitting in Calcutta, but it is believed that shortly jurisdiction will be transferred to a High Court at Patna, the constitution of which has not yet been decided. In the administration of civil justice below the High Court are the District Judges as Courts of Appeal, the Subordinate Judges and the Munsifs. The jurisdiction of a District Judge or Subordinate Judge extends to all original suits cognizable by the Civil Courts. It does not, however, include the powers of a Small Cause Court, unless these be specially conferred. The ordinary jurisdiction of a Munsif extends to all suits in which the amount or value of the subject matter in dispute does not exceed Rs. 1,000 though the limit may be extended to Rs. 2,000. On the criminal side the Sessions Judge hears appeals from Magistrates exercising first class powers while the District Magistrate is the appellate authority for Magistrates exercising second and third class powers. The District

Magistrate can also be, though in point of fact he very rarely is, a court of first instance. It is usual in most districts for a Joint Magistrate or a Deputy Magistrate to receive complaints and police reports, cases of difficulty or importance being referred to the District Magistrate who is responsible for the peace of the district. In the non-regulation districts the Deputy Commissioner and his subordinates exercise civil powers and hear rent suits.

### Local Self Government.

Bengal Act III of 1884, which regulates the constitution, powers and proceedings of Municipal bodies in this Province has been amended by the Bengal Acts IV of 1894 and II of 1896. By these enactments the elective franchise has been further extended, and now provides for the establishment and maintenance of veterinary institutions and the training of the requisite staff, the improvement of breeds of cattle, the training and employment of female medical practitioners, the promotion of physical culture, and the establishment and maintenance of free libraries. The Commissioners may order a survey and organise a fire brigade, they may control the water-supply when its purity is suspected, even to the extent of interference with private rights, larger powers of precaution are conferred in the case of ruined and dangerous houses and other erections, as well as increased optional powers for the general regulation of new buildings.

The total number of Municipalities at present in existence is 55, of which 6 were established during the last decade. The ratepayers of 48 Municipalities have been granted the privilege of electing two-thirds of the number of Commissioners fixed in each case, whilst in 24 cases the Commissioners are authorised to elect their own Chairman. In the remaining towns Government has reserved to itself the power of appointing the Commissioners or Chairman, as the case may be, owing either to the backwardness of the place or to the necessity for holding the balance against contending interests or strong party feeling. It is only in 7 towns, however, that Government exercises complete control in the appointment of both Commissioners and Chairmen.

Apart from Municipalities, each district with the exception of Santal Parganas and Singhbhum has District and Local Boards. Municipal areas are excluded in accordance with the provisions of section 1. Local Boards have been formed in all districts where there are sub-divisions, except in Champaran and Ranchi. There are at present 18 District Boards, 40 Local Boards, and 5 Union Committees in the Province.

In accordance with the provisions of section 7 of the Act, a District Board is to consist of not less than 9 members. Local Boards are entitled to elect such proportion (as a rule one-half) of the whole of the District Board as the Lieutenant-Governor may direct. In districts where there are no Local Boards, the whole of the members are appointed by Government. The Chairman of the District Board is appointed by Government; he is usually the Magistrate of the district.

### Land Tenures.

Estates in the Province of Bihar and Orissa are of three kinds. Permanently settled from

1793 to be found in the Patna, Tirhut and Bhagalpur divisions; Temporarily settled as in Chota Nagpur and parts of Orissa; and estates held direct by Government whether as proprietor or managed in the Court of Wards. The passing of the Bengal Tenancy Act (VIII of 1885) safeguarded the rights of the cultivators under the Permanent Settlement Act. Further, the Settlement Department under the supervision of the Director of Land Records takes periodical survey and settlement operations in the various districts both permanently and temporarily settled. In the former, the rights of the under tenants are accorded and attested, while in the latter there is the re-settlement of rents. In the re-settlement proceedings, rents are fixed not only of landlords but also for all the tenants. A settlement can be ordered by Government on application made by raiyats.

The tenures of Orissa are somewhat different. Under the zamindars, that is, the proprietors who took settlement from Government and pay revenue to Government direct, is a class of subordinate proprietors of proprietary tenure holders, who were originally village headmen, dealing more or less direct with the revenue authorities. They have a variety of names, such as *mukadam*, *padhan*, *maurusi*, *sarbarakar*, *pursethi*, *khariddar* and *shikmi* zamindar. These sub-proprietors or proprietary tenure holders pay their revenue through the zamindars of the estates within which their lands lie. In Chota Nagpur, Orissa, and the Santal Parganas, the rights of village headman have been recognised. The headman collects the rents and is responsible for them minus a deduction as remuneration for his trouble.

### Police.

The Departments of Police, Prisons and Registration are each supervised and inspected by an Inspector General with a suitable staff of assistants under the general direction of Government. The Commissioner of Excise and Salt is also Inspector General of Registration.

Under the Inspector General of Police are three Deputy Inspectors General and 25 Superintendents. There are also 25 Assistant Superintendents of Police and 14 Deputy Superintendents. The force is divided into the District Police, the Railway Police and the Military Police. A Criminal Investigation Department has also been formed for the collection and distribution of information relating to professional criminals and criminal tribes whose operations extend beyond a single district and to control, advise, and assist in investigations of crime of this class and other serious cases in which its assistance may be invoked. There are two companies of Military Police which are maintained as reserves to deal with serious and organised disturbances and perform no ordinary civil duties. The work of the Railway Police is practically confined to offences actually committed on the railways, but they are under the control of the Deputy Inspector General of the Criminal Investigation Department, and an important part of their duties is to co-operate with the District Police in watching the movements of bad characters by rail. The prevention and detection of crime in the Province generally is entrusted to the District Police. In that work they are assisted by the rural police, known as *chaukidars* and

*dafadars*, who form no part of the regular force, but are under a statutory obligation to report all cognizable crime at the police station, and generally to assist in the prevention and detection of crime. They are not whole-time servants of Government; but they are paid a small monthly salary which is realized from the villagers by the *panchayat*. The cost of the police is Rs. 46,48,000.

### Education.

The Department of Public Instruction is controlled by a Director. There are four Divisional Inspectors of Schools, one of whom inspects European schools in addition to his own duties. 2 Additional Inspectors, 3 Assistant Inspectors, including the Agency Inspector in Orissa, 4 special officers for Muhammadan Education, 24 Deputy Inspectors (exclusive of one in Native States), 182 Sub-Inspectors (exclusive of five paid by Native States), 46 Assistant Sub-Inspectors (exclusive of one paid by a Native State) and 259 Guru Instructors (exclusive of nine paid by Native States).

The main divisions of Educational Institutions are Primary, Secondary, Collegiate and Training.

The main object of Primary Schools is to provide the masses with sufficient knowledge of reading, writing, and arithmetic, to secure them in their dealings with the money lender and zamindar or zamindar's underlings. Primary Schools for Indian boys are of two classes, Upper and Lower.

It is probable that there will be a new University situated at Patna. The important Secondary Schools are the district or Zilla Schools to be found at the head-quarters of each district. The Higher English Schools which include private institutions as well as Government aided schools at sub-divisional head-quarters and Middle English and Middle Vernacular Schools which are under the control of District Boards. The District and Local Boards are also responsible for Primary Education with the assistance of the expert advisers of the Education Department. There are at present seven colleges in the province—two at Patna, one at Bhagalpur, one at Cuttack, one at Hazaribagh; (managed by the Dublin Mission), one at Muzaffarpur and a small College at Monghyr. The number of High Schools for Indian pupils under Public management is 21 with 6,200 pupils, while 44 with 9,350 pupils are aided by public funds. There are 23,231 Primary Schools with an attendance of 6,45,252 pupils. Of these, 16,802 are maintained or aided by public funds. The village schoolmaster or *guru* is now receiving special training. There are 130 Guru Training Schools for masters and 8 Training Schools for Mistresses. Other special institutions are 36 Industrial and Artisan Schools, two Commercial Schools and 14 Mad-rassas, where instruction is given in Arabic and Persian. The expenditure on public education from public funds amounts to Rs. 21,43,342.

### Medical.

The Medical Department is under the control of the Inspector General of Civil Hospitals who is a Member of the Indian Medical Service. Under him there are 20 Civil Surgeons who are responsible for the medical work of the districts at the head-quarters of which they are



stationed. 47 Dispensaries are maintained by Government—

State Public	..	..	15
State Special Police	..	..	23
State Canal	..	..	4
State Others	..	..	5

Total .. 47

Besides these there are 281 Dispensaries maintained by Local bodies, Railways, private persons, etc. 29,78,709 patients including 44,550 in-patients were treated in 1912. There is one Lunatic Asylum and 7 institutions for the treatment of lepers.

The Sanitation Department is in charge of the Sanitary Commissioner who is directly subordinate to Government as its expert adviser in regard to sanitation. There are three Deputy Sanitary Commissioners who work under the control of the Sanitary Commissioner. Vaccination is carried out by a staff under the direction of the Sanitary Commissioner. There is also a qualified Sanitary Engineer.

#### Administration.

*Lieutenant-Governor*, Sir Charles Stuart Bayley, K.C.S.I., I.S.O., Assumed charge of office, 1st April, 1912.

#### PERSONAL STAFF.

*Private Secretary*, C. B. Bayley, C.V.O.

*Aide-de-Camp*, Capt. H. F. Collingridge.

*Extra Aide-de-Camp*, Subadar-Major Hira Singh.

*Honorary Aide-de-Camp*, Lieut.-Col. V. N.

Hickley, V.D., Major A. T. Peppe.

#### EXECUTIVE COUNCIL.

E. A. Gait, C.S.I.; C.I.E. Took his seat, 1st August, 1912.

E. V. Levinge, C.S.I. Took his seat, 1st August 1912.

Maharaja Bahadur Sir Rameswar Singh, K.C.I.E. of Darbhanga. Took his seat, 1st August 1912.

#### LEGISLATIVE COUNCIL.

*President*, The Lieutenant-Governor.

*Vice-President*, E. A. Gait, C.S.I., C.I.E.

#### Ex-Officio.

The Members of the Executive Council.

#### NOMINATED.

##### Officials.

C. E. A. W. Oldham.

H. LeMesurier, C.S.I., C.I.E.

E. H. C. Walsh.

H. J. McIntosh.

F. N. Fischer.

L. J. Korshaw.

E. R. Gardiner.

H. McPherson.

C. A. White.

Ahsan-ud-din Ahmad, I.S.O.

E. L. Hammond.

R. T. Dundas.

L. F. Morshead.

J. R. F. Lewis.

#### Non-Officials.

Maharaja Bahadur Sir Rameswar Prasad Singh, K.C.I.E.

Maharaja Baikuntha Nath De.

Madhu Sudan Das, C.I.E.

Rev. A. Campbell, D.D.

#### ELECTED.

Maharaj-Kumar Gopal S. Narayan Singh.

Kumar Girija Nandan Singh.

Kirtanand Singh.

Raja Rajendra N. Banj Deo.

Kumar Thakural G. Prasad Singh.

W. A. Lee.

T. R. Filgate, C.I.E.

Saiyid Fakhr-ud-din, Khan Bahadur.

Mahbub Hasan Khan, Khan Bahadur.

Saiyid Muhammad Tahir.

Khwaja Muhammad Nur.

Bishun Prasad.

Dwarka Nath.

Sheo Shankar Sahai, C.I.E.

Gokulanand Chanduri.

Sharat Chandra Sen.

Krishna Sahai.

Braja Kishor Prasad.

Kumar Sheonandan Prasad Singh.

Sudam Charan Nalk.

Gopi Krishna.

#### SECRETARIAT.

*Chief Secretary to Government, Political, Appointment, and Educational Department*, H. LeMesurier, C.S.I., C.I.E.

*Secretary to Government, Financial and Municipal Departments*, E. L. Hammond.

*Secretary to Government, Revenue Department*, H. McPherson.

*Secretaries to Government (P. W. D.), Irrigation Branch*, C. A. White.

*Buildings and Roads Branch*, E. R. Gardiner.

#### BOARD OF REVENUE.

*Member*, W. Maude.

*Secretary*, J. A. Hubbard.

#### MISCELLANEOUS APPOINTMENTS.

*Director of Public Instruction*, N. L. Hallward.

*Inspector-General of Police*, L. F. Morshead.

*Conservator of Forests*, H. Carter.

*Inspector-General of Civil Hospitals*, Lt.-Col. F. J. Drury.

*Sanitary Commissioner*, Lt.-Col. E. C. Hare, I.M.S.

*Inspector-General of Prisons*, Lt.-Col. Bawa Jivan Singh.

*Accountant-General*, L. E. A. Pritchard.

*Director of Agriculture*, W. B. Heycock.

*Registrar of Co-Operative Credit Societies*, A. B. Collins.

## The Central Provinces and Berar.

The Central Provinces and Berar compose a great triangle of country midway between Bombay and Bengal. Their area is 130,001 miles, of which 82,000 are British territory proper and the remainder held by Feudatory Chiefs. The population (1911) is 13,916,308 under British administration and 2,117,002 in the Feudatory States. Various parts of the Central Provinces passed under British control at different times in the wars and tumult in the first half of the 19th century and the several parts were amalgamated after the Mutiny, in 1861, into the Chief Commissionership of the Central Provinces. Berar was, in 1853, assigned to the East India Company as part of a financial arrangement with the Nizam and was transferred to the Central Provinces in 1903, as the result of a fresh agreement with the Nizam.

### The Country.

The Central Provinces may roughly be divided into three tracts of upland, with two intervening ones of plain country. In the north-west, the Vindhyan plateau is broken country, covered with poor and stunted forest. Below its precipitous southern slopes stretches the rich wheat growing country of the Nerbada valley. Then comes the high Satpura plateau, characterised by forest-covered hills and deep water-cut ravines. Its hills decline into the Nagpur plain, whose broad stretches of shallow black cotton soil make it one of the more important cotton tracts of India and the wealthiest part of the C. P. The Eastern half of the plain lies in the valley of the Wainganga and is mainly a rice growing country. Its numerous irrigation tanks have given it the name of the "lake country" of Nagpur. Further east is the far-reaching rice country of Chhattisgarh, in the Mahanadi basin. The south-east of the C. P. is again mountainous, containing 24,000 square miles of forest and precipitous ravines, and mostly inhabited by jungle tribes. The Feudatory States of Bastar and Kankar lie in this region. Berar lies to the south-west of the C. P. and its chief characteristic is its rich black cotton-soil plains.

### The People.

The population of the province is a comparatively new community. Before the advent of the Aryans, the whole of it was peopled by the Gonds and these aboriginal inhabitants fared better from the Aryans than their like in most parts of India because of the rugged nature of their home. But successive waves of immigration flowed into the province from all sides. The early inhabitants were driven into the inaccessible forests and hills, where they now constituted a large portion of the tribes in those parts, who form a quarter of the whole population of the C. P. The Gonds are still found in large numbers in all parts of the province, but they are partially concentrated in the south-east. The main divisions of the new comers are indicated by the language divisions of the province. Hindi, brought in by the Hindustani-speaking peoples of the North, prevails in the North and East; Marathi in Berar and the west and centre of the C. P. Hindi is spoken by 66 per cent. of the population and is the *lingua franca*. Marathi by

31 per cent. and in Berar, and Gond by 7 per cent. The effects of invasions is curiously illustrated in Berar, where numbers of Moslems have Hindu names, being descendants of former Hindu officials who on the Mahomedan invasion adopted Islam rather than lose their positions. The recent census shows that a gradual Brahmanising of the aboriginal tribes is going on. The tribes are not regarded as impure by the Hindus and the process of absorption is more or less a civilising one.

### Industries.

When Sir Richard Temple became first Chief Commissioner of the C. P. the province was land-locked. The only road was that leading in from Jubbulpore to Nagpur. The British administration has made roads in all directions, the two trunk railways between Bombay and Calcutta run across the province and in the last few years a great impetus has been given to the construction of subsidiary lines. These developments have caused a steady growth of trade and have aroused vigorous progress in every department of life. The prime industry is, of course, agriculture, which is assisted by one of the most admirable agricultural departments in India and is now receiving additional strength by a phenomenal growth of the co-operative credit movement. The land tenure is chiefly on the zamindari, or great land-lord, system, ranging, with numerous variations, from the great Feudatory chiefships, which are on this basis, to holdings of small dimensions. A system of land legislation has gradually been built up to protect the individual cultivator. Berar is settled on the Bombay ryotwari system. Thirty-eight per cent. or about 44,000 square miles of the C. P. is forest; in Berar the forest area is 3,941 square miles. The rugged nature of the greater part of the country makes forest conservation difficult and costly. Excluding forest and wastes, 57 per cent. of the total land is occupied for cultivation; in the most advanced districts the proportion is 80 per cent.; and in Berar the figure is also high. The cultivated area is extending continuously except for the temporary checks caused by bad seasons. Rice is the most important crop of the C. P., covering a quarter of the cropped area. Wheat comes next, with 15½ per cent., then pulses and cereals used for food and oil seeds, with 11 per cent. and cotton with 7 per cent. In Berar cotton occupies nearly 40 per cent. of the cropped area, jowar covers an equal extent, then wheat and oil seeds. In agriculture more than half the working population is female.

### Commerce and Manufactures.

Industrial life is only in its earliest development except in one or two centres, where the introduction of modern enterprise along the railway routes has laid the foundations for great future developments of the natural wealth of the province. Nagpur is the chief centre of a busy cotton spinning industry. The Empress Mills, owned by Parsi manufacturers, were opened there in 1877 and the general prosperity of the cotton trade has led to the addition of many mills here and in other parts of the province. The total output of spun yarn

in the past few years (April-March) has been as follows:—

1910-11	..	28,314,423	yards.
1911-12	..	37,738,443	"
1912-13	..	33,581,772	"

The output of woven goods in the same years was:—

1910-11	..	42,538,830	yards.
1911-12	..	46,370,335	"
1912-13	..	48,653,903	"

The largest numbers engaged in any of the modern industrial concerns are employed in manganese mining. There were in 1911-12, the last year for which returns are available, 29 mines, their output of manganese was 342,923 tons, value Rs. 16,33,000, and 7,792 people were employed in them. Coal mining in the same period gave employment to 2,293 persons and the coal output was 211,014, of the value of Rs. 8,50,477. Jabalpur is the scene of the famous marble quarries and allied works and the output there in the same year was 106,118 tons, of the value of Rs. 1,13,756, the number of persons employed being 3,500. The total number of factories of all kinds so legally described was according to the latest returns, 363 and the number employed in them 41,838. The same economic influences which are operative in every progressive country during its transition stage are at work in the C. P. and Berar, gradually sapping the strength of the old village industries, as communications improve, and concentrating industries in the towns. While the village industries are fading away, a large development of trade has taken place. The last available reports show an increase in volume by one-third in eight years.

#### Administration.

The administration of the Central Provinces and Berar is conducted by a Chief Commissioner, who is the controlling revenue and executive authority and is appointed by the Governor-General-in-Council. He is assisted by three secretaries, two under-secretaries and an assistant secretary. Simultaneously with the jubilee of the foundation of Province in 1913 a Legislative Council was constituted. It consists of 24 members, excluding the Chief Commissioner, 7 being elected by municipalities, District Councils and Landholders in the C. P. and 17 nominated by the Chief Commissioner, of whom not more than 10 may be officials and 3 shall be non-officials chosen respectively by the municipalities, District Boards and Landholders of Berar. The Chief Commissioner may nominate an additional member, official or non-official, who has special knowledge of a subject on which legislation is pending. The C. P. are divided for administrative purposes into four divisions, and Berar constitutes another division. Each of these is controlled by a Commissioner. Berar is divided into six districts, three other divisions into three districts each and one into three, and these are controlled by Deputy-Commissioners, immediately subordinate to the Commissioners. The principal heads of Provincial departments are the Commissioner of Settlements and Land Records, the Inspector-General of Civil Hospitals and Sanitary Commissioners, the Inspector-General of Police,

the Inspector-General of Prisons, the Director of Public Instruction, the Commissioner of Excise and Miscellaneous Revenue, and the Director of Agriculture and Industries. The Deputy-Commissioners of districts are the chief revenue authorities and District Magistrates, and they exercise the usual powers and functions of a district officer. The district forests are managed by a forest officer, usually a member of the Imperial Forest Service, over whom the Deputy-Commissioner has certain powers of supervision, particularly in matters affecting the welfare of the people. Each district has a Civil Surgeon, who is generally also Superintendent of the District Jail and whose work is also in various respects supervised by the Deputy-Commissioner. The Deputy-Commissioner is also marriage registrar and manages the estates of his district which are under the Court of Wards. In his revenue and criminal work the Deputy-Commissioner is assisted by (a) one or more Assistant Commissioners, or members of the Indian Civil Service; (b) one or more Extra-Assistant Commissioners, or members of the Provincial Civil Service, usually natives of India, but including a few Europeans and Eurasians; and (c) tahsildars and sub-tahsildars, or members of the Subordinate service, who are nearly always natives of India. The district is divided for administrative purposes into talisils, the average area of which is 1,500 square miles. In each village a lambardar, or representative of the proprietary body, is executive headman.

#### Justice.

The Judicial Commissioner is the highest court of civil appeal, and except in cases against European British subjects, in which the High Court of Bombay has jurisdiction, is the highest court of criminal appeal. He is assisted by an Additional Judicial Commissioner for the Central Provinces and another for Berar. The administration of criminal justice was formerly entirely in the hands of Commissioners and the District staff, but Commissioners have now no criminal power, as such and their place as Sessions Judges has been taken by Divisional Judges. By the Civil Courts Act of 1904, the civil has finally been separated from the executive department. The civil staff consists of Divisional Judges, District Judges, Subordinate Judges and Munsifs.

#### Local Government.

Municipal administration was first introduced under the Punjab Municipal Acts and the Municipality of Nagpur dates from 1864. Several revising Acts extend its scope. Viewed generally, municipal self-government is considered to have taken root successfully. The general basis of the scheme is the Local Board for each tahsil and the District Council for each district. In Berar these bodies are called Taluk Boards and District Boards. The larger towns have municipalities. A certain proportion of the Local Board members are village headmen, elected by their own class, others are elected representatives of the mercantile and trading classes, and a third proportion, not exceeding  $\frac{1}{3}$  of the whole, are nominated by Government. The constitution of the District Councils is similar. The officers of the District Councils are frequently non-

officials, but it is generally found convenient that the *Tahsildar* and *Naib Tahsildar* should be *Chairman* and *Secretary* of the *Local Boards*. The *District Councils* have no power of taxation and *Local Boards* derive their funds in allotments from the *District Councils*. Rural education and sanitation are among the primary objects to which these bodies direct their attention and expenditure on famine relief is in the first instance a charge upon the *District Council* funds.

### Finance.

The main sources of Government income in the province has always been the land revenue, but under *Mahratta* rule many petty imposts were added in all branches of trade and industry and life in general. Thus there was a special tax on the marriage of *Banias* and a tax of a fourth of the proceeds of the sale of houses. The scheme of Provincial finance was introduced in 1871-72. Special settlements under this system have been necessitated in view of the special circumstances of the province and the recurrence of famine, which a few years ago caused a severe economic strain upon the province. The wave of prosperity which has spread over the country in the past ten years, since the end of the previous period, has more than trebled the funds available for the administration, compared with what they were before the several years of scarcity, and the progress of the administration and of expenditure has increased correspondingly, without any increase of taxation under provincial heads.

### Public Works.

The *Public Works Department* is controlled by a *Chief Engineer*, who is also *Secretary* to the *Chief Commissioner*. There are two *Superintending Engineers* for roads and buildings and a third in charge of irrigation. In 1892 a separate division of the *Public Works Department* was formed for the construction of roads and buildings in the *Fudatory States*. The expansion of the department and its work has been one of the most remarkable features of the administration in the past decade and a half, largely owing to the demands of a progressive age in regard to communications and new buildings. The *Irrigation Branch* of the *P. W. D.* represents a completely new departure. It was formerly the accepted view that the irregular surface of the country would make irrigation canals impossible and that the *S. W. monsoon* was so regular that it would pay better to relieve famine than to prevent it. Both conclusions have been reversed. Picked officers investigated projects for irrigation when the *Irrigation Commission* was appointed (1901) and canal and storage works have since been advanced with vigour. The *Tandula*, *Wainganga* and *Mahanadi* canal projects are amongst the more important schemes.

### Police.

The police force was constituted in its present basis on the formation of the province, the whole of which, including the *Municipalities*, is under one force. The strength is equal to one man per 9 square miles of area. The superior officers comprise an *Inspector-General*, whose jurisdiction extends over *Berar*, *Deputy Inspectors-General*, in charge of the *Eastern*

and *Western* range and of the *Criminal Investigation Department*, and the usual cadre of *District Superintendents*, *Assistant and Deputy Superintendents*, and subordinate officers. On three railways special railway police are employed and on others the *Provincial force*. A *Special Reserve* of 290 men is distributed over the head-quarters of six districts, for use in dealing with armed disturbers of the peace in whatever quarter they may appear. The men in this reserve are regularly drilled and armed with rifles. There is a small force of *Mounted Police*. The *Central Provinces* have no village police as the term is understood in some other parts of India. The village watchman is the subordinate of the village headman and not a police official and it is considered very desirable to maintain his position in this respect.

### Education.

The educational department was constituted in 1862 and the scheme then drawn up has remained the basis of the system of public education to the present day. The leading principles are that the department should content itself with the direct management of colleges and higher secondary schools, the training of teachers and inspection in work in rural areas. The maintenance of rural schools should as far as possible be left to the local authorities, every encouragement should be given to private philanthropy and no Government schools should be founded where there existed a sufficient number of institutions capable, with the assistance of the State, of supplying the local demand for instruction. At the head of the Department is the *Director of Public Instruction*, who has a staff of *Inspectors* and an *Inspector* for girls' schools. The *Educational Service* includes these appointments, except the last. An *Agency Inspector* supervises the schools of the *Fudatory States*. The province has three colleges: a *Government College* at *Jubbulpore*, and the *Morris* and *Hislop Colleges* at *Nagpur*. The *Agricultural Department* maintain an *Agricultural College* at *Nagpur*. The *Colleges* are affiliated to *Alahabad University*, but a demand has arisen for a local University, both for practical and sentimental reasons. Until recently, the demand for education, primary or secondary, was satisfied by a few institutions in the larger towns, while in the whole of the rural districts primary education had to be pressed on an apathetic and even obstructive agricultural population. The new spirit of progress in recent years has quickened the public pulse and the efforts of Government to effect improved facilities have responded accordingly.

### Medical.

The medical and sanitary services of the province are respectively controlled by an *Inspector-General of Civil Hospitals* and a *Sanitary Commissioner*, the latter being assisted by a *Sanitary Engineer*. The medical department has progressed along comparatively stereotyped lines. A striking advance has been made in recent years with urban sanitation. The principal medical institutions are the *Mayo Memorial Hospital* at *Nagpur*, opened in 1874, with accommodation for 80 inpatients; the *Victoria Hospital* at *Jubbulpore*,

opened in 1886 and accommodating 64 in-patients; the Lady Dufferin Hospitals at Nagpur and Rajpur and the Lady Elgin Hospital at Jubbulpore, these last three being for women and containing together accommodation for 64 in-patients. The province has two lunatic asylums, at Nagpur and Jubbulpore respectively. Vaccination is compulsory in some Municipal towns to which the Vaccination Act has been extended.

### Administration.

*Chief Commissioner*, Sir B. Robertson, K.C.S.I., C.I.E., apptd. 3rd Aug. 1912.

*Personal Assistant*, Capt. R. J. McCleverty.

*Chief Secretary*, P. C. H. Moss-King.

*Registrar*, R. W. Johnson.

*Secretary, Public Works Department*, R. H. Tickell.

*Financial Commissioner*, H. A. Crump.

*Commissioner of Settlements and Director of Land Records*, C. U. Wills (Officiating).

### BERAR.

*Commissioner*, F. G. Sly, C.S.I.

### MISCELLANEOUS APPOINTMENTS.

*Director of Public Instruction*, A. G. Wright, M.A.

*Inspector-General of Police*, F. S. A. Slocock.

*Chief Conservator of Forests*, M. Hill.

*Inspector-General of Civil Hospitals and Sanitary*

*Commissioner*, Col. G. W. P. Denny, I.M.S.

*Commissioner of Excise, etc.*, Rastamji Fardunji.

*Comptroller (Financial Dept.)*, W. H. E. Mellor.

*Postmaster-General*, P. G. Rogers.

*Director of Agriculture and Industries*, C. E. Low, C.I.E.

*Registrar of Co-operative Credit Societies*, H. R. Crosthwaite.

### CHIEF COMMISSIONERS.

Colonel E. K. Elliot .. 1861  
Lieut.-Colonel J. K. Spence (Officiating) .. 1862  
R. Temple (Officiating) .. 1862

Colonel E. K. Elliot .. 1863  
J. S. Campbell (Officiating) .. 1864  
K. Temple .. 1864  
J. S. Campbell (Officiating) .. 1865  
K. Temple .. 1865  
J. H. Morris (Officiating) .. 1867  
G. Campbell .. 1867  
J. H. Morris (Officiating) .. 1868

Confirmed 27th May 1870.

Colonel R. H. Keatinge, C.S.I. (Offg.) .. 1870  
J. H. Morris, C.S.I. .. 1872  
C. Grant (Officiating) .. 1879  
J. H. Morris, C.S.I. .. 1879  
W. B. Jones, C.S.I. .. 1883  
C. H. T. Crosthwaite (Officiating) .. 1884

Confirmed 27th January 1885.

D. Fitzpatrick (Officiating) .. 1885  
J. W. Neill (Officiating) .. 1887  
A. Mackenzie, C.S.I. .. 1887  
R. J. Crosthwaite (Officiating) .. 1889  
Until 7th October 1889.

J. W. Neill (Officiating) .. 1890  
A. P. MacDonnell, C.S.I. .. 1891  
J. Woodburn, C.S.I. (Officiating) .. 1893

Confirmed 30th November 1893.

C. J. Lyall, C.S.I., C.I.E. .. 1893  
D. C. J. Ibbotson, C.S.I. .. 1898  
A. H. J. Fraser, C.S.I. (Officiating) .. 1899

Confirmed 5th March 1902.

J. P. Hewett, C.S.I., C.I.E. (Officiating) .. 1902  
Confirmed 2nd November 1903.  
F. S. P. Lely, C.S.I. (Officiating) .. 1904

Confirmed 23rd December 1904.

J. O. Miller, C.S.I. .. 1905  
S. Ismay, C.S.I. (Officiating) .. 1906

Until 22nd October 1906.

F. A. T. Phillips (Officiating) .. 1907  
Until 25th March 190 Also from 20th

May to 22nd November .. 1909.

R. H. Craddock, C.S.I. .. 1907  
H. A. Crump (Officiating) .. 1912  
M. W. Fox-Strangways, C.S.I. (Sub. pro-tem). 1912

Sir B. Robertson, K.C.S.I., C.I.E. .. 1912

## North-West Frontier Province.

The North-West Frontier Province, as its name denotes, is situated on the north-west frontier of the Indian Empire. It is in form an irregular strip of country lying north by east and south by west and may generally be described as the tract of country, north of Baluchistan, lying between the Indus and the Durand boundary line with Afghanistan. To the north it extends to the mountains of the Hindu Kush. From this range a long broken line of mountains runs almost due south, dividing the province from Afghanistan, until the Sulaiman Range eventually closes the south of the Province from Baluchistan. The greatest length of the province is 408 miles, its greatest breadth 279 miles and its total area about 39,000 square miles. The territory falls into three main geographical divisions: the Cis-Indus district of Hazara; the narrow strip between the Indus and the Hills, containing the Districts of Peshawar, Kohat, Banu and Dera Ismail Khan, and the rugged mountainous regions on the north and west between those districts and the border line of Afghanistan. Hazara and the four districts

in the second division contain 13,418 square miles. The mountain regions, north and west, are occupied by tribes subject only to the political control of the Chief Commissioner in his capacity as Agent to the Governor-General. The area of this tract is roughly 25,500 square miles and in it are situated, from north to south, the political agencies severally known as the Malakand, Khyber, Kurram, Tochi and Wana Agencies. Each of the Deputy Commissioners of the five administered districts is responsible for the management of political relations with certain tribes or sections of the tribes across the frontier. A few hundred miles of the trans-border Territory are internally administered by the Political Agents, but the bulk of the trans-border population is free from any internal interference, so long as offences are not committed and so long as the tribes observe the conditions on which allowances are paid to many of them.

The area of the Province is a little more than half that of Bombay (excluding Sind and Aden) and amounts to more than three-fifths of the size of England without Wales. The density

of population throughout the Province equals 98 persons to a square mile, but in the more favoured portions the pressure of population is much greater. In the Hazara District there are 207 persons to a square mile and in the trans-Indus plains tract the number is 152. The key to the history of the people of the N.-W. F. P. lies in the recognition of the fact that the valley of Peshawar was always more closely connected politically with Eastern Iran than with India, though in pre-Mahomedan times its population was mainly Indian by race. Early history finds the Iranians dominating the whole Indus valley. Then came the Greek invasion under Alexander the Great, in B.C. 327, then the invasions of the Sakas, and of the White Huns, and later, the two great waves of Muhammadan invasion. Last came the Sikh invasion, beginning in 1818. The Frontier Territory was annexed by the British in 1849 and placed under the control of the Punjab Government. Frequent warfare occurred with the border tribes, but since the conclusion of peace with the Afridis in 1898, the whole border has been undisturbed except for the expedition against the Zakka Khel Afridis in 1908.

The division of the Frontier Province from the Punjab was frequently discussed, with the double object of securing closer and more immediate control and supervision of the Frontier by the Supreme Government and of making such alterations in the personnel and duties of frontier officials as would tend to the establishment of improved relations between the local British representatives and the independent tribesmen. The province was eventually removed from the control of the Punjab administration in 1901. To it was added the political charge of Dir, Swat and Chitral, the Political Agent of which had never been subordinate to the Punjab. The new Province was constituted under a Chief Commissioner and Agent to the Governor-General, with headquarters at Peshawar, in direct communication with the Government of India in the Foreign Department. In political questions there is no intermediary between the Chief Commissioner and the local officer; an arrangement designed to secure both prompt disposal of references and the utilisation of the expert knowledge of frontier conditions for which the head of the administration is selected.

### The People.

The total population of the N.-W.F.P. (1911) is 3,819,027, made up as follows:—

Hazara .. .. .	603,028
Trans-Indus Districts .. .. .	1,593,905
Trans-Border Area .. .. .	1,622,094

This last figure is estimated. There are only 625·6 females per 1,000 males in the towns and 900 females per 1,000 males in rural areas. This disproportion of the sexes cannot at present be explained in the N.-W.F.P. any more than in other parts of Northern India, where it also appears. The discrepancy is greater here than in any other Province of India. There is no ground for believing that the neglect of girls in infancy has any effect in causing the phenomenon. On the other hand, the female population has to face many trials which are unknown to men. The evils of unskilled midwifery and early marriage are among them.

Both the birth and death-rates of the Province are abnormally low. The birth rate in the administered districts in 1912 was 35·1 and the death-rate 33·3. There were 122·5 male births for every 100 females. It is recognised that in this matter, and in regard to population generally, the registration of females may be defective, inasmuch as the Pathan, for whatever reasons, regards the birth of a daughter as a misfortune, the less said about which the better. The population is naturally increasing, but emigration reduces the net result.

The dominant language of the Province is Pashtu and the population contains several lingual strata. The most important sections of the population, both numerically and by social position, are the Pathans. They own a very large proportion of the land in the administered districts and are the ruling race of the tribal area to the west. There is a long list of Pathan, Baluch, Rajput and other tribal divisions. Gurkhas have recently settled in the Province. The Mahomedan tribes constitute almost the whole population, Hindus amounting to only 5 per cent. of the total and Sikhs to a few thousands. The occupational cleavage of the population confuses ethnical divisions.

Under the North-West Frontier Province Law and Justice Regulation of 1901, custom governs all questions regarding successions, betrothal, marriage, divorce, the separate property of women, dower, wills, gifts, partitions, family relations such as adoption and guardianship, and religious usages and institutions, provided that the custom be not contrary to justice, equity or good conscience. In these matters the Mahomedan or Hindu law is applied only in the absence of special custom.

### Climae, Flora and Fauna.

The climatic conditions of the N.-W.F.P.; which is mainly the mountainous region, but includes the Peshawar Valley and the riverine tracts of the Indus in Dera Ismail Khan District, are extremely diversified. The latter district is one of the hottest areas of the Indian continent, while on the mountain ranges the weather is temperate in summer and intensely cold in winter. The air is generally dry and hence the annual ranges of temperature are frequently very large. The Province has two wet seasons, one the S.-W. Monsoon season, when moisture is brought up from the Arabian Sea and the Bay of Bengal; the other in winter, when storms from Mesopotamia, Persia and the Caspian Districts bring widespread rain and snowfall. Both sources of supply are precarious and not infrequently either the winter or the summer rainfall falls almost entirely. The following description of the Daman, the high ground above the Indus, stretching across Dera Ismail Khan to the mountains on the west, occurs in a account written some years ago by Captain Croswaite: "Men drink once a day and the cattle every second day. Washing is an impossible luxury. . . . It is possible in the hot weather to ride thirty miles and neither hear a dog bark nor see the smoke of a single fire." With the exception of the Kunhar River, in Hazara, which flows into the Jhelum, the

whole territory drains into the Indus. The flora of the Province varies from the shrubby jungle of the south-eastern plains to barren hills, pine forests and fertile mountain valleys. Tigers used to abound in the forests but are not quite extinct; leopards, hyenas, wolves, jackals and foxes are the chief carnivora. Bear, deer and monkeys are found; a great variety of fish is caught in the Indus.

The mountain scenery is often magnificent. The frontier ranges contain many notable peaks of which the following are the principal: Takht-i-Sulaiman, Sulaiman Range, in Lera Ismail Khan, 11,292 feet.

Pir Ghal, Sulaiman Range, in Mahsud Waziristan, 11,583 feet.

Sika Ram, in the Safed Koh, in the Kurram Agency, 15,621 feet.

Kagan Peaks of the Himalayas, in the Hazara District, 10,000 to 16,700 feet.

Istragh Peak (18,900 ft.), Kachin Peak (22,641 ft.), Tirich Mir (25,426 ft.), all in the Hindu Kush, on the northern border of Chitral Agency.

### Trade and Occupations.

The population derives its subsistence almost wholly from agriculture. The Province is practically without manufactures. There is no considerable surplus of commercial products for export. Any commercial importance which the province possesses it owes to the fact that it lies across the great trade routes which connect the trans-border tribal territories and the marts of Afghanistan and Central Asia with India, but the influence of railways is diminishing the importance of these trading interests. The travelling traders (or Powindahs) from the trans-frontier area have always pursued their wanderings into India and now, instead of doing their trading in towns near the border, carry it by train to the large cities in India. Prices of agricultural produce have in recent years been high, but the agriculturists, owing to the poverty of the means of communication, have to some extent been deprived of access to Indian markets and have therefore been unable to profit by the rates prevailing. On the other hand, high prices are a hardship to the non-agricultural classes. The effects of recent extensions of irrigation have been important. Land tenures are generally the same in the British administered districts as in the Punjab. The cultivated area of the land amounts to 32 per cent. and uncultivated to 68 per cent.

The work of civilisation is now making steady progress. Relations with the tribes have improved, trade has advanced, free medical relief has been vastly extended, police administration has been reformed and the desire of people for education has been judiciously and sympathetically fostered. In the British administered districts 19 per cent. males and 7 per cent. females of the total population are returned as literates. The figures for males denote a very narrow diffusion of education even for India. Those for females are not notably low, but they are largely affected by the high literacy amongst Sikh women, of whom 13·3 per cent. are returned as literate. The inauguration of a system of light railways throughout the Province, apart from all considerations of strategy, must materially im-

prove the condition of the people and also by that means strengthen the hold of the administration over them. The great engineering project of the Upper Swat River Canal, which was recently completed, and the lesser work of the Paharpur Canal, also completed a year or two ago, will bring ease and prosperity to a number of peasant homes. There has arisen in recent years the difficult question of the importation of thousands of rifles from the Persian Gulf.

### Administration.

The administration of the North-West Frontier Province is conducted by a Chief Commissioner and Agent to the Governor-General in Council. His staff consists of—

- (1) Officers of the Political Department of the Government of India.
- (2) Members of the Provincial Civil Service.
- (3) Members of the Subordinate Civil Service.
- (4) Superintendents and Assistant Superintendents of Police.
- (5) Officers recruited for the service of departments requiring special knowledge—Militia, Engineering, Education, Medicine and Forestry.

The cadre posts reserved for officers coming under the first head above are:—

Administration	Chief Commissioner & Agent to the Governor-General	5
	Secretary	
	Assistant Secretary	
	Personal Assistant	
	Revenue Commissioner and Revenue Secretary	
	Resident in Waziristan...	1
	Deputy Commissioners	5
	Political Agents	4
	District Judges	2
	Assistant Commissioners and Assistant Political Agents	12
High Court and Divisional Judges.	One Judicial Commissioner.	3
	Two Divisional and Sessions Judges.	

The districts under the Deputy Commissioners are divided into from two to five sub-collectorates, in charge of tahsildars, who are invested with criminal and civil and revenue powers, and are assisted by naib-tahsildars, who exercise only criminal and revenue powers. Some sub-divisions are in charge of Assistant or Extra Assistant Commissioners. The village community characteristic of some parts of India is not indigenous among the Pathans. Its place as a social unit to some extent taken by the tribe, which is held together by the ties of kinship and ancient ancestry, real or imaginary. Modern municipal local government has been introduced in the towns. There are also district boards. The district is the unit for police, medical and educational administration and the ordinary staff includes a District Superintendent of Police, a Civil Surgeon, who is also the Superintendent of Jail and a District Inspector of Schools. The Province forms a single educational circle and only possesses one forest division, that of Hazara. There are four divisions of the Roads and Building

Branch of the Public Works Department, each under an Executive Engineer. The Irrigation Department of the P.W.D. is in charge of the Chief Engineer, Irrigation, Punjab, who is also *ex-officio* Secretary to the Chief Commissioner. The administration of the civil police force of the districts is vested in an Inspector-General. There is a special force of Border military police. The revenue and expenditure of the Province are wholly Imperial. Of the Agencies only Kurram and Tochi Valley pay land revenue to the British Government. The revenue administration of all five administered districts is controlled by the Revenue Commissioner. For the administration of civil and criminal justice there are two Civil and Sessions divisions, each presided over by a Divisional and Sessions Judge. The Judicial Commissioner is the controlling authority in the Judicial branch of the administration, and his Court is the highest criminal and appellate tribunal in this Province. The principal officers in the present Administration are—  
*Agent to Governor-General and Chief Commissioner*, Lieut.-Col. Sir G. O. Roos-Keppel, K.C.I.E., appointed 8th July, 1908.  
*Resident, Waziristan*, J. S. Donald, C.S.I.; C.I.E. Judicial Commissioner, W. P. Barton.  
*Revenue Commissioner*, Lieut.-Col. C. B. Rawlinson, C.I.E., I.A.  
*Secretary to Chief Commissioner*, Major D. B. Blakeway, C.I.E., I.A.

*Asst. Secretary to Chief Commissioner*, Capt. W. L. Campbell, I.A.

*Personal Asst. to Chief Commissioner*, Capt. W. A. M. Garstin.

*Inspecting Officer, Frontier Corps*, Col. A. R. Dick, I.A.

*Secretaries, Public Works Department*, Col. W. J. D. Dundee, C.I.E., R. E. Purves.

*Agency Surgeon and Administrative Medical Officer*, Lieut.-Col. W. R. Edwards, C.M.G., M.D., I.M.S.

*Divisional and Sessions Judges*, Lieut.-Col. C. F. Minchin, D.S.O.; I.A.; Major W. J. Keen, I.A.

#### Political Agents.

Major R. L. Kennion, I.A., Dir, Swat & Chitral. S. E. Pears, Khyber.

Major C. A. Smith, I.A.; Tochi.

Capt. R. A. Jyall, I.A.; Kurram.

*Inspector-General of Police*, H. A. Close.

*Director of Public Instruction*, J. A. Richey, M.A.  
*Superintendent, Archaeological Survey*, Sir A. Stein, K.C.I.E., D. Litt. D.S.O.

#### Former Chief Commissioners.

Lieut.-Col. H. A. Deane, C.S.I. Died 7th July, 1908.

W. H. H. Merk, C.S.I. Officiating to 31st Oct. 1910.

## Assam.

The Province of Assam, 61,682 square miles in area, includes the Assam Valley Division, the Surma Valley and Jilils Division and the State of Manipur. It owes its importance to its situation on the north-east frontier of India. It is surrounded by mountainous ranges on three sides while on the fourth (the west) lies the Province of Bengal on to the plains of which debouch the two valleys of the Brahmaputra and the Surma which form the plains of Assam. These two valleys are separated from each other by the Assam Range, which projects westward from the hills on the eastern border.

#### Population.

The total population of the province in 1911 was 7,059,857, of whom 1½ millions were Mahomedans, 3½ millions Hindus and 1½ millions Animists. 46 per cent. of the population speak Bengali, 22 per cent. speak Assamese; other languages spoken in the province are Hindi, Uriya and a great variety of languages classified under the general heading of the Tibeto-Chinese languages. Owing to the great areas of waste and rivers the density of the province is only 115, which, compared with that of most other parts of India, is low, but is more than double that of Burma.

#### Agricultural Products.

It has agricultural advantages for which it would be difficult to find a parallel in any part of India, climate, soil, rainfall and river systems all being alike favourable to cultivation. Rice is the staple food crop, about 4 million

acres being devoted to this crop. Except in the Himalayan Terai irrigation is unnecessary. Jute and tea are the most important crops grown for export; the area under jute being generally about 40,000 acres, that under tea about 338,000 acres. In 1910, the tea crop yielded over 175 million pounds of manufactured tea. Wheat and tobacco are also grown and about 30 square miles are devoted to sugarcane. The total area of 'reserved' forest is about 3,778 square miles and the unclassified state forests cover about 18,509 square miles.

#### Meteorological Conditions.

Rainfall is everywhere abundant, and ranges from 93 to 124 inches. The maximum is reached at Cherrapunji in the Khasi Hills, which is one of the wettest places in the world, having a rainfall of 465 inches. The temperature ranges from 59° at Sibsaagar in January to 84° in July. Earthquakes of considerable severity have taken place, by far the worst being that which occurred in 1897.

#### Land Tenures.

Most of the actual cultivators of the soil usually hold direct from the State, and the area of land on which rent is paid is inconsiderable. A large part of Goalpara and of the more densely populated portions of Sylhet was however included in the permanent settlement of Bengal; and the system of land tenure in Cachar, and the existence of large estates on privileged rates of revenue in Kamrup have tended to produce a tenant class which at the 1901 census amounted to more than one-third



of the total number of persons supported by agriculture. In the 1911 census a very marked increase in tenancy throughout the Province is shown.

#### Mines and Minerals.

The only minerals in Assam worked on a commercial scale are coal, limestone and petroleum oil. The most extensive coal measures are in the Naga Hills district, where about 239,000 tons are raised annually and used mainly by the river steamers. Limestone is quarried in the Khasi and Jaintia Hills, in Sylhet, and in the Garo hills; about 96,000 tons are quarried in a year. Petroleum is worked only in Lakimpur; the oil is rich in paraffin, and the chief products are light naphthas, kerosine and wax. The oil is sold locally, and the wax is exported, mainly to England. Lubricating oil is produced on the southern slopes of the Khasi Hills. The total output of oil from the wells was, in 1910, nearly 3,300,000 gallons.

#### Manufactures.

Silk is manufactured in the Assam Valley, the weaving being done by the women. Cotton weaving is also largely practised by the women, and almost every house contains a loom; the cloth is being gradually displaced by imported goods of finer texture and colour. Boat building, brass and metal and earthenwares, tea manufacture and limestone burning are the other industries apart from agriculture, which itself employs about 84 per cent. of the population. Assam carries on a considerable trade with the adjoining foreign tribes and countries. In 1912-13 the total trade with Bhutan amounted to over 24 lakhs. This is considerably less than usual owing to the fact that the exports fell considerably owing to an outbreak of cholera at Darranga which frightened the Bhutiyas and sent them back to their homes without their usual supplies. In addition to this there is a small trade with the Abor, Mishmi, and other tribes.

#### Communications.

The trade of Assam is chiefly carried by river, but increasing use is being made of the Assam Bengal Railway which runs from the port of Chittagong to Silchar at the eastern end of the Surma Valley. A branch of that line runs along the south of the Assam Valley from Gauhati to Tinsukia, a station on the Dibru-Sadiya Railway, and is connected with the Surma Valley branch by a line that pierces the North Cachar Hills, the points of junction being Lumding in the northern and Badarpur in the southern valley. The Eastern Bengal State Railway connects Assam with the Bengal system *via* the valley of the Brahmaputra. The excellence of its water communication makes Assam less dependent upon roads than other parts of India; but in recent years the road system has been developed and there is a trunk road through the whole length of the Brahmaputra Valley and an excellent road from Gauhati to Shillong. A large fleet of steamers maintained by the India General Steam Navigation Company and the Rivers Steam Navigation Company plies on the rivers of both valleys. A daily service of passenger boats runs from Goalundo to Dibrugarh.

#### Education.

The latest census report shows that there are in the Province at present 4,118 educational institutions including two Arts Colleges with 168,250 pupils. Of the total population 333,672 are returned as literate. The distribution of literacy naturally varies considerably throughout the Province. The large number of immigrant coolies and of aboriginal tribes tends to lower the proportion of literates in the Brahmaputra Valley, and a comparatively high standard of literacy in the Hills is due mainly to the progress of education amongst the Khasis of whom a large proportion have been converted to Christianity. Amongst the Animists in the Hills the Lushais seem to have an extraordinary keenness for learning, which is the more remarkable, because the administration of their district dates from quite recent times.

#### Administration.

The province of Assam was originally formed in 1874 in order to relieve the Lieutenant-Governor of Bengal of part of the administration of the huge territory then under him. In 1903, as the result of further deliberations, it was decided to add to the small Province of Assam the eastern portion of its unwieldy neighbour and to consolidate those territories under a Lieutenant-Governor. The Province of Eastern Bengal and Assam as then constituted was again broken up on the 1st of April, 1912: the Eastern Bengal Districts were united with the Bengal Commissionerships of Burdwan and the Presidency to form the Presidency of Bengal under a Governor-in-Council, Bihar, Chota Nagpur and Orissa were formed into a separate province, while the old Province of Assam was re-constituted under a Chief Commissioner.

The capital is Shillong, a town laid out with great taste and judgment among the pine woods on the slopes of the Shillong Range which rises to a height of 6,450 feet above the sea. It was destroyed in the earthquake of 1897 and has been rebuilt in a way more likely to withstand the shocks of earthquake.

#### Chief Commissioners of Assam.

Colonel R. H. Keatinge, C.S.I.	..	..	1874
Sir S. C. Bayley, K.C.S.I.	..	..	1878
C. A. Elliot, C.S.I.	..	..	1881
W. E. Ward	..	..	1883
Dennis Fitzpatrick, C.S.I.	..	..	1887
J. Westland, C.S.I.	..	..	1889
J. W. Quinton, C.S.I.	..	..	1889
Brig.-General Sir H. Collett, K.C.B.	..	..	1891
W. E. Ward, C.S.I.	..	..	1891
C. J. Lyall, C.S.I.	..	..	1894
H. J. S. Cotton, C.S.I.	..	..	1896
J. B. Fuller, C.I.E.	..	..	1900
J. B. Fuller, C.I.E.	..	..	1902
C. W. Bolton, C.S.I.	..	..	1903
<i>Note.</i> —The Chief Commissionership of Assam was revived 1st April, 1912.			
Sir Archdale Earle, K.C.I.E.	..	..	1912

**Administration.**

*Chief Commissioner*, Sir Archdale Earle, K.C.I.E.,  
appointed 1st April, 1912.  
*Personal Assistant*, Capt. E. Magniac.

*Chief Secretary*, W. J. Reid.  
*Second Secretary*, Major W. M. Kennedy.  
*Secretary, Public Works Department*, W. McM.  
Sweet.

*Registrar*, Charu Chandra Goswami.  
*Judges*, J. F. Graham, S. E. Stinton, J. C. II.  
Macnair.

*Director of Public Instruction*, J. R. Cunningham.  
*Inspector-General of Police*, Lt.-Col. A. E.  
Woods.

*Sanitary Commissioner*, Col. R. N. Campbell.  
*Comptroller, Financial Department*, L. J. W.  
Worgan.

*Political Agent in Manipur*, Lt.-Col. J. Shakespear.

*Director of Land Records and Agriculture*, J.  
McSwiney.

*Superintendent, Archaeological Survey, Eastern  
Circle*, D. B. Spooner.

*Chief Inspector of Factories*, C. A. Walsh.

**LEGISLATIVE COUNCIL.**

Lieut.-Col. P. R. T. Gurdon.

F. C. Hemmiker.

W. J. Reid.

Major W. M. Kennedy.

W. McM. Sweet,

J. R. Cunningham, M. A.

J. F. Graham.

Abdul Majid.

A. B. Hawkins.

Raja Prabhat Chandra Barua.

Raman Mohan Das.

Srijut Padmanath Barua.

**Baluchistan.**

Baluchistan is an oblong stretch of country occupying the extreme western corner of the Indian Empire. It is divided into three main divisions: (1) British Baluchistan with an area of 9,476 square miles consisting of tracts assigned to the British Government by treaty in 1879; (2) Agency Territories with an area of 4,435 square miles composed of tracts which have, from time to time, been acquired by lease or otherwise brought under control and placed directly under British officers; and (3) the Native States of Kalat and Las Bela with an area of 78,434 square miles. The Province embraces an area of 134,638 square miles and according to the census of 1911 it contains 834,703 inhabitants, divided roughly half and half between the administered districts and States.

The country, which is almost wholly mountainous, lies on a great belt of ranges connecting the Safed Koh with the hill system of Southern Persia. It thus forms a watershed the drainage of which enters the Indus on the east and the Arabian Sea on the south while on the north and west it makes its way to the inland lakes which form so large a feature of Central Asia. Rugged, barren, sun-burnt mountains, rent by high chasms and gorges, alternate with arid deserts and stony plains, the prevailing colour of which is a monotonous sight. But this is redeemed in places by level valleys of considerable size in which irrigation enables much cultivation to be carried on and rich crops of all kinds to be raised.

The political connection of the British Government with Baluchistan commenced from the outbreak of the First Afghan War in 1839; it was traversed by the Army of the Indus and was afterwards occupied until 1842 to protect the British lines of communication. The districts of Kachi, Quetta and Mastung were handed over to the Amir of Afghanistan and Political Officers were appointed to administer the country. At the close of the First Afghan War, the British withdrew and these districts were assigned to the Khan of Kalat. The founder of the Baluchistan Province as it now exists was Sir Roberts Sandeman who

broke down the close border system and welded the Baluch and Brahui Chiefs into a close confederacy. In the Afghan War of 1879 Pishin, Sibi, Jarnai and Thal-Chotiali were handed over by Yakub Khan to the British Government and retained at Sir Robert Sandeman's strenuous insistence.

**Industries.**

Baluchistan lies outside the monsoon area and its rainfall is exceedingly irregular and scanty. Shahrig which has the heaviest rainfall, records no more than 11½ inches in a year. In the highlands few places receive more than 10 inches and in the plains the average rainfall is about 5 inches, decreasing in some cases to 3. The majority of the indigenous population are dependent for their livelihood on agriculture, provision and care of animals and transport. The Afghan and the Baluch, as a rule, cultivates his own lands. The Brahuis dislike agriculture and prefer a pastoral life. Previous to the advent of the British, life and property were so insecure that the cultivator was fortunate if he reaped his harvest. The establishment of peace and security has been accompanied by a marked extension of agriculture which accounts for the increase in the numbers of the purely cultivating classes. The Mekran Coast is famous for the quantity and quality of its fish and the industry is constantly developing. Fruit is extensively grown in the highlands and the export is increasing.

Education is imparted in 157 schools with 4,129 scholars. The mineral wealth of the Province is believed to be considerable, but cannot be exploited until railways are developed. Coal is mined at Khost near Quetta and in the Bolan Pass and chromite is extracted in the Quetta-Pishin District.

**Administration.**

The head of the local administration is the officer styled Agent to the Governor-General and Chief Commissioner. Next in rank comes the Revenue Commissioner who advises the Agent to the Governor-General in financial matters and generally controls the revenue

administration. The keynote of administration in Baluchistan is self-government by the tribesmen, as far as may be, by means of their Jirgas or Councils of Elders along the ancient customary lines of tribal law, the essence of which is the satisfaction of the aggrieved and the settlement of the feud, not retaliation on the aggressor or the vindictive punishment of a crime. The district levies which number 2,800 odd play an unobtrusive but invaluable part in the work of the Civil Administration not only in watch and ward and the investigation of crime, but also in the carrying of the mails, the serving of processes and other miscellaneous work. In addition to these district levies there are three irregular Corps in the Province: the Zhob Militia (formerly known as the Zhob Levy Corps), the Makran Levy Corps, and the Chagai Levy Corps. Their combined strength on 31st March 1912 was 953 cavalry and 892 infantry. The Province does not pay for itself and receives large subsidies from the Imperial Government. The receipts and expenditure roughly balance each other at 25½ lakhs.

#### ADMINISTRATION.

*Agent to the Governor-General and Chief Commissioner*, Ramsay, The Hon'ble Lieut.-Colonel J., C.S.I., C.I.E., I.A.

*Revenue and Judicial Commissioner*, Archer, Lieut.-Colonel C., C.S.I., C.I.E.

*Secretary, Public Works Department*, Duff, Lieut.-Colonel G. M., R.E.

*First Assistant to the Agent to the Governor-General and Secretary to the Chief Commissioner*, Bray, Denys de S., I.C.S.

*Second Assistant to the Agent to the Governor-General*, Weir, Captain J. L., I.A.

*Political Agent, Zhob*, Jacob, Major, A. L., I.A.  
*Assistant Political Agent, Zhob*, Cater, A.N.L., I.C.S.

*Political Agent, Kalat and Bolan Pass*, Dew, Major A. B., C.I.E., I.A.

*Assistant Political Agent, Kalat and Bolan Pass*, James, Captain E. H. S., I.A.

*Assistant for Mekran to the Political Agent in Kalat and ex-officio Commandant, Mekran Levy Corps*, Williams, Lieutenant S.

*Adjutant, Mekran Levy Corps*, Robson, Lieut. H. W. C.

*Political Agent, and Deputy Commissioner, Quetta and Pishin*, McConaghey, Lieut.-Colonel A., C.I.E., I.A.

*Assistant Political Agent and Assistant Commissioner, Quetta and Pishin*, McConaghey, Major F., I.A.

*Political Agent, Chagai*, Grey, Lieut.-Colonel W. G., I.A.

*Political Agent and Deputy Commissioner, Sibi*, Ramsay, A. D. G., C.I.E.

*Assistant Political Agent, Sibi*, Waterfield, S.S.

*Political Agent, Loralai*, Whyte, Lieut.-Colonel J. F., I.A.

*Assistant Political Agent, Loralai*, Hughes, T.O.

*Residency Surgeon and Chief Medical Officer*, Duke, Lieut.-Colonel A. L., I.M.S.

*Civil Surgeon, Quetta*, MacLeod, Major J. N., M.A.; C.I.E., I.M.S.

#### ANDAMAN AND NICOBAR ISLANDS.

This is a group of islands in the Bay of Bengal of which the headquarters are at Port Blair, by sea 780 miles from Calcutta, 740 miles from Madras and 360 miles from Rangoon, with which ports there is regular communication.

The land area of the islands under the administration is 3,143 square miles, namely; 2,508 square miles in the Andamans and 635 square miles in the Nicobars. The total population of the islands was returned in the census of 1911 as 26,459. The Islands are administered by the Chief Commissioner of the Andaman and Nicobar Islands who is also the Superintendent of the Penal Settlement. The penal settlement, which was established in 1858, is the most important in India.

*Superintendent of Port Blair*, Lieut.-Col. M. W. Douglas, C.I.E.

*Commandant and District Superintendent of Military Police*, Captain R. H. Anderson.

*Medical Superintendent of Jails*, Captain J. Murray, I.M.S.

*Senior Medical Officer*, Major J. M. Wooley, I.M.S.

#### COORG.

Coorg is a small petty Province in Southern India west of the State of Mysore. Its area is 1,582 square miles and its population 174,976. Coorg came under the direct protection of the British Government during the war with Sultan Tipu of Seringapatam. In May 1834, owing to misgovernment, it was annexed. The Province is directly under the Government of India and administered by the Chief Commissioner of Coorg who is the Resident in Mysore with his headquarters at Bangalore. In him are combined all the functions of a local government and a High Court. The Secretariat is at Bangalore where the Assistant Resident is styled Secretary to the Chief Commissioner of Coorg. In Coorg his chief authority is the Commissioner whose headquarters are at Mercara and whose duties extend to every branch of the administration. The chief wealth of the country is agriculture and especially the growth of coffee. Although owing to over-production and insect pests coffee no longer commands the profits it once enjoyed, the Indian output still holds its own against the severe competition of Brazil. The bulk of the output is exported to France.

*Resident and Chief Commissioner, Coorg*, The Hon. Lt.-Col. Sir Hugh Daly, K.C.I.E.

#### AJMER-MERWARA.

Ajmer-Merwara is an isolated British Province in Rajputana. The Agent to the Governor-General in Rajputana administers it as Chief Commissioner. The Province consists of two small separate districts, Ajmer and Merwara, with a total area of 2,711 square miles and a population of 501,895. At the close of the Pindari war Daulat Rao Scindia, by a treaty dated June 25, 1818, ceded the district to the British. Fifty-five per. cent of the population are supported by agriculture, the industrial population being principally employed in the cotton and other industries. The principal crops are maize, millet, barley, cotton, oilseeds and wheat.

*Agent to the Governor-General in Rajputana and Chief Commissioner of Ajmer-Merwara*, The Hon. Lieut.-Col. Sir E. G. Colvin, K.C.S.I.

## Aden.

Aden was the first new territory added to the Empire after the accession of Queen Victoria. Its acquisition in 1839 was the outcome of an outrage committed by the local Fadhil chief upon the passengers and crew of a British bugalow wrecked in the neighbourhood. Various acts of treachery supervened during the negotiations regarding the bugalow outrage and Aden was captured by a force sent by the Bombay Government under Major Baillie. The act has been described as one of those opportune political strokes which have given geographical continuity to British possessions scattered over the world.

Aden is an extinct volcano, five miles long and three broad, jutting out to sea much as Gibraltar does, having a circumference of about 15 miles and connected with the mainland by a narrow isthmus of flat ground. This is nearly covered at one part at high spring tides, but the causeway and aqueduct are always above, though sometimes only just above, water. The highest peak on the wall of precipitous hills that surrounds the old crater which constitutes Aden is 1,775 feet above sea level. Rugged spurs, with valleys between, radiate from the centre to the circumference of the crater. A great gap has been rent by some volcanic disturbance on the sea surface of the circle of hills and this opens to the magnificent harbour. The peninsula of Little Aden, adjacent to Aden proper, was obtained by purchase in 1868 and the adjoining tract of Shaikh Othman, 39 square miles in extent, was subsequently purchased when, in 1882, it was found necessary to make provision for an over-flowing population.

Attached to the settlement of Aden are the islands of Perim, an island of 5 square miles extent in the Straits of Babel-Mandeb, in the entrance to the Arabian Sea; Sokotra island, at the entrance to the Gulf of Aden, in the Arabian Sea, acquired by treaty in 1886 and 1,382 miles in extent; and the five small Kuria Muria islands, ceded by the Imam of Maskat in 1854 for the purpose of landing the Red Sea cable, and otherwise valuable only for the guano deposits found upon them. They are off the Arabian coast about two-thirds of the way from Aden to Maskat. The whole extent of the Aden settlement, including Aden, Little Aden, Shaikh Othman, and Perim is approximately 80 miles. The 1911 census shows Aden, with Little Aden, Shaikh Othman, and Perim to have a population of 46,165. The population of Perim is a matter of a few hundreds, largely dependent on the Coal Depot maintained there by a commercial firm. That of Sokotra is 12,000, mostly pastoral and migratory inland, fishing on the coast.

### Strategic Importance.

Aden's first importance is as a naval and military station of strategic importance. This aspect was ably discussed by Colonel A. M. Murray, in his "Imperial Outposts". He points out that Aden is not a naval base in the same sense that Gibraltar, Malta and Hong Kong were made, but a *point d'appui*, a rendezvous and striking point for the fleet. It was seized in 1839 because of its usefulness as a harbour of refuge for British ships and from a strategist's point of view this is its primary purpose and the *raison d'être* of its forts and garrison. Aden

under British rule has retained its ancient prestige as a fortress of impregnable strength, invulnerable by sea and by land, dominating the entrance to the Red Sea, and valuable to its owners as a commercial emporium, a port of call and a cable centre. The harbour extends 8 miles from east to west and 4 from north to south and is divided into two bays by a spit of land. The depth of water in the western bay is from 3 to 4 fathoms, across the entrance  $4\frac{1}{2}$  to 5 fathoms, with 10 to 12 fathoms 2 miles outside. The bottom is sand and mud. There are several islands in the inner bay. Strategic control of the Red Sea was rendered complete by the annexation of Perim and Sokotra, which may both be regarded as outposts of Aden, and are under the political jurisdiction of the Resident.

The Arab chiefs of the hinterland of Arabia are nearly all stipendiaries of the British Government. Colonel Wahab and Mr. G. H. Fitzmaurice, of the Constantinople Embassy, were appointed in 1902 as Commissioners to delimitate the frontier between Turkish Arabia and the British protectorate around Aden. A convention was signed in 1905 settling details, the frontier line being drawn from Shaikh Murad, a point on the Red Sea coast opposite Perim, to the bank of the river Bana, the eastern limit of Turkish claims, at a point some 29 miles north-east of Dthala, and thence north-east to the great desert. The area left within the British Protectorate is about 9,000 square miles. A sanitorium and small British garrison used to be maintained at Dthala, which is 7,700 feet high, but the garrison was withdrawn in 1906, Lord Morley explaining this step as being in accordance with the policy stated in the House of Lords in 1903,—that His Majesty's Government had never desired to interfere with the internal and domestic affairs of the tribes on the British side of the boundary, but had throughout made it plain that they would not assent to the interference of any other Power with those affairs.

### British Policy.

There has been much criticism of a policy under which Aden has failed to advance with the same progressive strides which have marked the development of other British dependencies. It is said that the former Persian possessors of Aden built its wonderful water tanks, and the Arabs made an aqueduct 20 miles long, while the British have done nothing except mount guns to protect their coal yards. Trade, it is argued, flourishes because this is a natural emporium of commerce, but not because of the attention its needs get from Government. Lord Roberts, writing on this point a few years ago said: "It is not creditable to British rule to make use of a dependency like Aden for selfish purposes of political necessity without attempting to extend the benefits of civilised Government to the neighbouring native tribes, especially when those tribes are living under the aegis of the British Crown. The Persians, the Turks and even the Arabs did more for Aden in their time than we have done during our seventy years' occupation..... Aden has always suffered under the disadvantage of being an appanage of the Bombay Presidency, with which it has neither geographical, racial nor

political affinity. Probably the best solution of the matter would be to hand over the place to the Colonial Office, relieving the Government of Bombay of a charge which is only looked upon as an incubus." Some important steps have been taken in the past few years to satisfy the commercial needs of the port.

### Trade.

The trade of Aden has developed immensely since British acquisition in 1839, largely through the Government of India declaring it a free port in 1850, since when it has attracted much of the valuable trade between Arabia and Africa, formerly monopolised by the Red Sea ports of Hodaida and Mokha. The opening of the Suez Canal was also responsible for a large increase of trade through Aden into the interior. The total imports by sea in the last year for which complete statistics are available (1911-12) amounted to £2,472,494; by land £170,782; treasure, £613,967; exports by sea were £2,203,745; by land, £114,850; treasure, £613,772. These statistics are exclusive of Government stores and treasure.

The language of the settlement is Arabic, but several other Asiatic tongues are spoken. The population is chiefly returned as Arabs and Shaikhs. The Somalis from the African coast and Arabs do the hard labour of the port. So far as the settlement is concerned there are no products whatever, with the important exception of salt. The crops of the tribal low country adjoining are jowar, sesamum, a little cotton, madder, a bastard saffron and a little indigo. In the hills, wheat, madder, fruit, coffee and a considerable quantity of wax and honey are obtained. The water supply forms the most important problem. Water is drawn from four sources—wells, aqueducts, tanks or reservoirs and condensers.

### Administration.

The Aden settlement is subject politically to the Government of Bombay and its administration is conducted by a Resident, who is assisted by four Assistants. The Resident is also military Commandant and is usually an officer selected from the Indian army, as are his assistants. The Resident has jurisdiction as a Judge

of the Vice-Admiralty Court in matters connected with slave trading, his court being called the Colonial Court of the Admiralty. The laws in force in the settlement are generally speaking those in force in the Bombay Presidency, supplemented on certain points by special regulations to suit local conditions. The management of the port is under the control of a Board of Trustees formed in 1888. The principal business of the Port Trust has been the deepening of the harbour, so as to allow vessels of all sizes to enter and leave at all stages of the tide. The Aden police force numbers slightly over 200 men. There are hospitals and dispensaries in both Aden and Perim, in addition to the military institutions of this character. The garrison comprises a troop of engineers, three companies of garrison artillery, one battalion of British infantry, two companies of sappers and miners and one Indian regiment. Detachments from the last named are maintained at Perim and Shaikh Othman respectively.

The average temperature of the station is 87 degrees in the shade, the mean range being from 75 in January to 98 in June, with variations up to 102. The hells between the monsoons, in May and September are very oppressive. Consequently, long residence impairs the faculties and undermines the constitution of Europeans and even Indians suffer from the effects of too long an abode in the settlement, and troops are not posted in the station for long periods, being usually sent there one year and relieved the next. But Aden is exceptionally free from infectious diseases and epidemics, and the absence of vegetation, the dryness of the soil and the purity of the drinking water constitute efficient safeguards against many maladies common to tropical countries. The annual rainfall varies from  $\frac{1}{2}$  inch to  $8\frac{1}{2}$  inches, with an irregular average of 3 inches.

The following are the principal officers of the present administration:—

*Political Resident*, Major-General Sir J. A. Bell, K.C.V.O., I.A.

*Assistant Residents*, Captain W. P. Hammond, (Perim), Major H. F. Jacob, Major J. K. Coudon, Captain C. C. J. Barrett, Captain B. R. Reilly, Lieutenant H. M. Wightwick,

The area enclosed within the boundaries of India is 1,773,168 square miles, with a population of 315,132,537 of people—nearly one-fifth of the human race. But of this total a very large part is not under British Administration. The area covered in the Native States is 675,267 square miles with a population of seventy millions. The Native States embrace the widest variety of country and jurisdiction. They vary in size from petty states like Lawa, in Rajputana, with an area of 19 square miles, and the Simla Hill States, which are little more than small holdings, to States like Hyderabad, as large as Italy, with a population of thirteen millions. They include the inhospitable regions of Western Rajputana, Baroda, part of the Garden of India, Mysore, rich in agricultural wealth, and Kashmir, one of the most favoured spots on the face of the globe. In the case of 175 States control is exercised by the Government of India, and of about 500 by the Provincial Governments. The four principal states, Hyderabad, Mysore, Baroda and Kashmir, are in direct relation with the Government of India. The other States are grouped under the direction of an Agent to the Governor-General, as for Rajputana and Central India; in one case the Provincial Government has been compelled to group its States, those of Kathiawar, under an Agent to the Governor.

## Relations with the Paramount Power.

So diverse are the conditions under which the Native States were established and came into political relation with the Government of India, that it is impossible even to summarise them. But broadly it may be said that as the British boundaries expanded, the states came under the influence of the Government and the rulers were confirmed in their possessions. To this general policy however there was, for a brief period, an important departure. During the regime of Lord Dalhousie the Government introduced what was called annexation through lapse. That is to say, when there was no direct heir, the Government considered whether public interests would be secured by granting the right of adoption. Through the application of this policy, the states of Satara and of Nagpur fell in to the East India Company, and the kingdom of Oudh was annexed because of the gross misgovernment of its rulers. Then came the Mutiny. It was followed by the transference of the dominions of the East India Company to the Crown, and an irrevocable declaration of policy toward the Native States. In the historic Proclamation of Queen Victoria it was set out that "We desire no extension of our present territorial possessions, and while we will permit no aggression on our dominions or our rights to be attempted with impunity, we shall allow no encroachments on those of others. We shall respect the rights, dignity and honour of the Native Princes as our own; and we desire that they, as well as our own subjects, should enjoy that prosperity and that social advancement which can only be secured by internal peace and good government." Since the issue of that proclamation there has been no encroachment on the area under Native rule by the Government of India. On the contrary, the movement has been in the op-

posite direction. In 1881 the State of Mysore, which had been so long under British administration that the traditions of Native rule were almost forgotten, was restored to the old Hindu ruling house. In 1911 the Maharajah of Benares, the great taluqdar of Oudh, was granted ruling powers over his extensive possessions. On many occasions the Government of India has had to intervene, to prevent gross misgovernment, or to carry on the administration during a long minority; but always with the undeviating intention of restoring the territories as soon as the necessity for intervention passed. Almost all states possess the right of adoption in default of heirs.

## Rights of Native States.

The rights and obligations of the Native States are thus described by the Imperial Gazetteer. The Chiefs have, without exception, gained protection against dangers from without and a guarantee that the protector will respect their rights as rulers. The Paramount Power acts for them in relation to foreign Powers and other Native States. The inhabitants of the Native States are the subjects of their rulers, and except in case of personal jurisdiction over British subjects, these rulers and their subjects are free from the control of the laws of British India. Criminals escaping to a Native State must be handed over to it by its authorities; they cannot be arrested by the police of British India without the permission of the ruler of the State. The Native Princes have therefore a suzerain power which acts for them in all external affairs, and at the same time scrupulously respects their internal authority. The suzerain also intervenes when the internal peace of their territories is seriously threatened. Finally they participate in all the benefits which the protecting power obtains by its diplomatic action, or by its administration of its own dominions, and thus secure a share in the commerce, the railways, the ports, and the markets of British India. Except in rare cases, applied to maritime states, they have freedom of trade with British India although they levy their own customs, and their subjects are admitted to most of the public offices of the British Government.

## Obligations of Native States.

On the other hand the Native States are under an obligation not to enter into relations with foreign nations or other states; the authority of their rulers has no existence outside their territories. Their subjects outside their dominions become for all intents and purposes British subjects. Where foreign interests are concerned, the Paramount Power must act so that no just cause of offence is given by its subordinate allies. All Native States alike are under an obligation to refer to the British every question of dispute with other states. Inasmuch as the Native States have no use for a military establishment other than for police, or display, or for co-operation with the Imperial Government, their military forces, their equipment and armament are prescribed by the Paramount Power. Although old and unaltered treaties declare that the British Government will have no manner of concern with any of a Maharajah's dependents or servants, with respect to whom the Maharajah is absolute, logic and public opinion

have endorsed the principle which Lord Canning set forth in his minute of 1859, that the "Government of India is not precluded from stepping in to set right such serious abuses in a Native Government as may threaten any part of the country with anarchy or disturbance, nor from assuming temporary charge of a Native State when there shall be sufficient reason to do so." Of this necessity the Governor-General-in-Council is the sole judge, subject to the control of Parliament. Where the law of British India confers jurisdiction over British subjects or other specified persons in foreign territory, that power is exercised by the British courts which possess it. The subjects of European Powers and the United States are on the same footing. Where cantonments exist in Native territory, jurisdiction both over the cantonment and the civil station is exercised by the suzerain power.

#### Political Officers.

The powers of the British Government are exercised through Political Officers who as a rule reside in the states themselves. In the larger states the Government is represented by a Resident. In groups of states by an Agent to the Governor-General, assisted by local Residents or Political Agents. These officers form the sole channel of communication between the Native States and the Government of India and its Foreign Department, with the officials of British India and with other Native States. They are expected to advise and assist the Ruling Chiefs in any administrative or other matters on which they may be consulted. Political Agents are similarly employed in the larger States under the Provincial Governments, but in the petty states scattered over British India the duties of the Agent are usually entrusted to the Collector or Commissioner in whose district they lie. All questions relating to the Native States are under the special supervision of the Supreme Government, and in the personal charge of the Governor-General. A proposal has been made by the Government of India that, in view of the increasing importance of the Native States, an additional Secretary, styled the Political Secretary, shall be appointed, who shall be in special charge, under the Viceroy, of these questions.

#### Closer Partnership.

Events have tended gradually to draw the Paramount Power and the Native States into closer harmony. Special care has been devoted to the education of the sons of Ruling Chiefs, first by the employment of tutors, and afterwards by the establishment of special colleges for the purpose. These are now established at Ajmere, Rajkot, Indore and Lahore. The Imperial Cadet Corps whose headquarters are at Dehra Dun, imparts military training to the sons of the ruling chiefs and

noble families. The spread of higher education has placed at the disposal of the Native States the products of the Universities. In these ways there has been a steady rise in the character of the administration of the Native States, approximating more closely to the British Ideal. Most of the Native States have also come forward to bear their share in the burden of Imperial defence. Following on the spontaneous offer of military assistance when war with Russia appeared to be inevitable over the Penjdeh incident in 1885, the states have raised a portion of their forces up to the standard of the Native troops in the Indian Army. These are termed Imperial Service Troops; they belong to the states, they are officered by Indians; but they are inspected by a regular cadre of British officers, under the general direction of the Inspector-General of Imperial Service Troops. Their numbers are approximately 22,000 men; their armament is the same as that of the Indian Army and they have done good service often under their own Chiefs, on the Frontier and in China and in Somaliland. Secure in the knowledge that the Paramount Power will respect their rights and privileges, the Ruling Chiefs have lost the suspicion which was common when their position was less assured, and the visits of the Prince of Wales in 1875, of the Prince and Princess of Wales in 1905-06, and of the King and Queen in 1911-12 have tended to seal the devotion of the great feudatories to the Crown. The improvement in the standard of native rule has also permitted the Government of India largely to reduce the degree of interference in the internal affairs of the Native States. The new policy was authoritatively laid down by Lord Minto, the then Viceroy, in a speech at *Ldaipur* in 1909, when he said:—

"Our policy is with rare exceptions, one of non-interference in the internal affairs of the Native State. But in guaranteeing their internal independence and in undertaking their protection against external aggression it naturally follows that the Imperial Government has assumed a certain degree of responsibility for the general soundness of their administration and could not consent to incur the reproach of being an indirect instrument of misrule. There are also certain matters in which it is necessary for the Government of India to safeguard the interests of the community as a whole as well as those of the paramount power, such as railways, telegraphs and other services of an Imperial character. But the relationship of the Supreme Government to the State is one of suzerainty. The foundation-stone of the whole system is the recognition of identity of interests between the Imperial Government and Durbars and the minimum of interference with the latter in their own affairs."

### HYDERABAD.

Hyderabad, the premier Native State in India, is in the Deccan. Its area is 82,698 square miles and population 13,374,676. The general physical characteristics of the State are an elevated plateau, divided geographically and ethnologically by the Manjra and Godavari rivers. To the North-West is the Trappan region, peopled by Marathas, a country of black cotton soil,

producing wheat and cotton. To the South-East is the granitic region of the Telugus and producing rice.

**HISTORY.**—In pre-historic times Hyderabad came within the great Dravidian zone. The date of the Aryan conquest is obscure, but the dominions of Asoka 272 to 231 B. C. embraced the northern and western portions of the State,

Three great Hindu dynasties followed, those of the Pallavas, Chalukyas\* and Yadavas. In 1294 the irruption of the Mahomedans under Ala-ud-din Khilji, commenced, and thenceforward till the time of Aurungzebe the history of the State is a confused story of struggles against the surviving Hindu kingdom of the South, and after the fall of Vijayanager, with each other. Aurungzebe stamped out the remains of Mahomedan independence of the South, and set up his General, Asaf Jah, of Turcoman descent, as Viceroy, or Subhadar of the Deccan in 1713. In the chaos which followed the death of Aurungzebe, Asaf Jah had no difficulty in establishing and maintaining his independence, and thus founded the present House. During the struggle between the British and the French for mastery in India, the Nizam finally threw in his lot with the British, and unshaken even by the excitement of the mutiny, has been so staunch to his engagements as to earn the title of "Our Faithful Ally." The present ruler is H. H. Sir Usman Ali Khan Bahadur Fateh Jung, G.C.S.I.

**THE BERARS.**—A most important event in the history of the State occurred in November 1902, when the Assigned Districts of Berar were leased in perpetuity to the British Government. These districts had been administered by the British Government on behalf of the Nizam since 1853; under the treaties of 1853 and 1860, they were "assigned" without limit of time to the British Government to provide for the maintenance of the Hyderabad contingent, a body of troops kept by the British Government for the Nizam's use, the surplus revenues, if any being payable to the Nizam. In course of time it had become apparent that the maintenance of the Hyderabad contingent on its old footing as a separate force was inexpedient and unnecessary, and that similarly the administration of Berar as a separate unit was very costly, while from the point of view of the Nizam, the precarious and fluctuating nature of the surplus was financially inconvenient. The agreement of 1902 re-affirmed His Highness' sovereignty over Berar, which instead of being indefinitely "assigned" to the Government of India, was leased in perpetuity to an annual rental of 25 lakhs (nearly £167,000); the rental is for the present charged with an annual debt towards the repayment of loans made by the Government of India. The Government of India were at the same time authorised to administer Berar in such manner as they might think desirable, and to redistribute, reduce, re-organise and control the Hyderabad Contingent, due provision being made, as stipulated in the treaty of 1853, for the protection of His Highness' dominions. In accordance with this agreement the Contingent ceased in March 1903 to be a separate force and was re-organised and redistributed as an integral part of the Indian Army, and in October 1903 Berar was transferred to the administration of the Chief Commissioner of the Central Provinces.

**ADMINISTRATION.**—The Nizam is supreme in the State and exercises the power of life and death over his subjects. For convenience in administration the Minister is the chief controlling authority in the State. To assist him there are five Assistant Ministers, Financial, Judicial, Military, Public Works and Ecclesiastical. All questions of importance are referred to the

Council, which is composed of the Minister as President, and the Assistant Ministers as Members. Business disposed of by the Council is immediately reported to the Nizam. The actual work of the departments is done by six Secretaries. Below the Secretaries the State is divided into Subhas or Divisions, Districts and Talukas. Fifteen District, 86 Taluk and nine Divisional Boards are at work in the District. A Legislative Council, consisting of 21 members, of whom 13 are official and 8 non-official, is responsible for making laws. The State maintains its own currency, the Osmania Sica rupee with a subordinate coinage. In 1904 an improved Mahbubia rupee was struck and this exchanges with the British rupee at the ratio of 115 or 116 to 100. It has its own postal system and stamps for internal purposes. It maintains its own Army, comprising 19,597 troops, of which 6,064 are classed as Regular and 13,533 as Irregular. There are in addition 696 Imperial Service Troops.

**FINANCE.**—After many vicissitudes, the financial position of the State is strong. The current budget provides for a revenue of Rs. 521 lakhs and a service expenditure of Rs. 478 lakhs. The principal revenue heads are Land Revenue 279 lakhs, Berar rent (land leased in perpetuity to the British Government and incorporated in the Central Provinces) 25 lakhs; Customs, etc., 67 lakhs; Excise 86 lakhs; Interest 34 lakhs.

**PRODUCTION AND INDUSTRY.**—The principal industry of the State is agriculture, which maintains 56.9 per cent. of the population. The common system of land tenure is ryotwari. As no reliable figures are available to show the gross produce it is impossible to say what proportion the land revenue bears to it, but it is collected without difficulty. The principal food crops are millet and rice; the staple money crops cotton, which is grown extensively on the black cotton soils, and oil-seeds. The State is rich in minerals. The great Warangal coal measures are worked at Singareni, but the efforts to revive the historic gold and diamond mines have met with very qualified success. The manufacturing industries are consequent on the growth of cotton, and comprise three spinning and weaving mills and ginning and pressing factories in the cotton tracts.

**COMMUNICATIONS.**—One hundred and thirty-seven miles of the broad gauge line from Bombay to Madras traverse the State. At Wadi, on this section, the broad gauge system of the Nizam's Guaranteed State Railway takes off, running East to Warangal and South-East toward Bezwa, a total length of 310 miles. From Hyderabad the metre gauge Godavari Railway runs North-West to Manmad on the Great Indian Peninsula Company's system 391 miles. There are thus 471 miles of broad gauge and 391 of metre in the State. The Barsi Light Railway owns a short extension to Latur. The roads are generally inferior.

**EDUCATION.**—The State maintains two Colleges. The Nizam College at Hyderabad (first grade) is affiliated to the Madras University. The Oriental College at Hyderabad prepares students for the local Mouli and Munshi examinations. There are 28 high schools, 63 middle schools, 917 primary schools, and 24 special schools including a Medical School in the Dominions.

*British Resident, Lieut.-Col. A. F. Phney.*



## MYSORE.

Mysore is in Southern India; bounded by Madras Districts on all sides except the N.-W., where it is bordered by two Bombay Districts and towards the S. W. by Coorg. It has an area of 29,459 square miles excluding the station of Bangalore and a population of 5,705,359, of whom over 92 per cent. are Hindus. Its form is that of a triangle, with the apex to the south at the point where the Western and Eastern Ghats converge in the Nilgiris. It is naturally divided into two regions of distinct character the hill country (the Malnad) on the West, and the widespread valleys and plains (the Maldan) on the East. The plains of black soil in the north of the Maldan grow cotton or millets, the irrigated tracts in the South are planted with sugarcane and rice. Kanarese is the distinctive language of the State.

**HISTORY.**—Part of Mysore was included, as is shown by edicts of Asoka, in the Mauryas' Empire. It subsequently came under the Andhra Dynasty who were succeeded by the Kadambas and Pallavas, and from the second to the eleventh century parts of it formed the Gangavadi kingdom. A local dynasty rose to dominion on the overthrow of the Gangas. The Mahomedan invasion of the South began in the 14th century but was arrested by the Vijayanagar kings, until that dynasty was upset in 1565, by the allied Mahomedan States of Bijapur, Golconda, Ahmednagar and Bidar. The kingdom of Hyder Ali (18th century) included Mysore, but the outlying possessions were gradually taken from it by the British, and in 1799 the Mahomedan State of Mysore came to an end at the second siege of Seringapatam and the death of Tipu, the son and successor of Hyder Ali. The Hindu State of Mysore was thereupon created, deprived of all the outlying provinces and Seringapatam, for the descendants of the old Hindu rajahs. Col. Arthur Wellesley (the Duke of Wellington) was the first administrator of the State, and the Mysore army took part in his war against the Marathas. The settlement left the Company the right of assuming the management if necessary; and in 1831, the misrule of the rajah, culminating in rebellion, compelled Lord William Bentinck to assume its management. In 1807 the Rajah's adoption of a son was recognised as valid in regard to the succession, and on that prince attaining his majority in 1881, the rendition of Mysore was carried out. That ruler, with the assistance of Mr. Sheshadri Iyer as Dewan, brought Mysore to a state of great prosperity. He died in 1891 and was succeeded by his eldest son, Maharaja Sir Sri Krishna Wodeyar, G.C.S.I., who was invested with power in 1902. In November, 1913, the Instrument of Transfer of 1881 was replaced by a Treaty.

**ADMINISTRATION.**—The city of Mysore is the capital of the State, but Bangalore city is the administrative headquarters, adjoining which is the civil and military station of Bangalore on a tract of land—measuring about 13½ square miles—assigned to the British Government and administered by the British Resident. The Maharaja is head of the State. In his name the administration is carried on by the Dewan, assisted by two Councillors. The Chief Court is composed of three judges, headed by the Chief Judge. A Representative assembly

meets once a year at Mysore, when the Dewan delivers his annual statement of the condition of the finances and the measures of the State, after which suggestions are considered. There is also a Legislative Council. There are eight administrative districts, subdivided into talukas, altogether 69 in number. The offices in the villages are hereditary and in each village is an ancient institution—a corporation of twelve—called *Ayyar* in Kanarese. The State supports a military force of 3,202, comprising 516 in an Imperial Service Regiment (cavalry) and 490 in an Imperial Service Transport Corps. Separate from the State police is a special body, the Kolar Gold Fields Police.

**FINANCE.**—The cash balance at the beginning of 1911-12 was Rs. 106 lakhs. Total receipts during that year were Rs. 338 lakhs, and total disbursements Rs. 327 lakhs. The principal revenue heads are Land Revenue, 106 lakhs; Mining Royalty and Leases, 19 lakhs; Forest Revenue, 22 lakhs; Excise, 42 lakhs; Stamps, 9 lakhs. Mysore pays an annual subsidy of 35 lakhs to the British Government.

**PRODUCTION AND INDUSTRY.**—Nearly three-fourths of the population are employed in agriculture, the general system of land tenure being ryotwari, but there are a certain number of inam tenures which are wholly or partly free. The principal food crops are ragi, rice, jola, millets, gram, sugarcane: the chief fibres are cotton and san-hemp; among miscellaneous crops are spices, tobacco, and mustard, and, in the neighbourhood of Bangalore, fruit and vegetables. The State is doing much to encourage agriculture on scientific lines.

The agricultural banks established from 1895 onwards, of which eleven years ago 61 were in existence, were not a success, and only two are left. On the other hand, good progress has been made under a Regulation passed in 1905 to provide for the establishment and control of co-operative societies. Five Societies were registered during the first year. In 1908 a central co-operative bank was started, and there are now over 265 outlying societies. Twenty-two mines were at work during the year, 15 for gold, 5 for manganese, and 2 for mica. The gold produced in the year was valued at over Rs. 320 lakhs. The manufacturing industries include 8 cotton ginning mills, 2 cotton pressing mills, 2 cotton mills, 21 cotton spinning mills, and weaving establishments not classified as mills, one silk filature, and one woollen mill. There are also a number of oil mills, sugar factories, and tanneries in the State.

**COMMUNICATIONS.**—The railway system radiates from Bangalore, various branches of the Madras Railway and of the Southern Mahratta Railway running through each District. The length of the lines owned by the State, and worked under contract by the S. M. R. is:—broad gauge, 9·88 miles; metre gauge 401·29 miles. A number of lines also have been surveyed and projected, and a progressive policy of construction for the next few years has been decided upon.

**EDUCATION.**—Two first grade colleges—the Central College at Bangalore, and the Maharaja's College at Mysore City—are affiliated to the Madras University. There are 2,567 public, and 1,911 private, educational institutions in the

State. This gives one school to every 6·58 square miles of the area and to every 1,274 persons of the population of the State.

**CAPITAL CITY.**—Mysore city, originally crowded and insanitary, has been much altered in recent years by the erection of many fine

buildings. An Improvement Trust was formed in 1903. Prominent buildings are the new Palace, Law Courts, the Victoria Jubilee Institute, and the Maharaja's College, Mysore. *Resident and Chief Commissioner of Coorg:* Lieut.-Col. Sir H. Daly.

## BARODA.

The State of Baroda is situated partly in Gujarat and partly in Kathiawar. It is divided into four distinct blocks: (1) the southern district of Navsari near the mouth of the Tapi river, and mostly surrounded by British territory; (2) central district, North of the Narbada, in which lies Baroda, the capital city; (3) to the North of Ahmedabad, the district of Kadi; and (4) to the West, in the Peninsula of Kathiawar, the district of Anand, formed of scattered tracts of land. The area of the State is 8,182 square miles; the population is over two millions, of whom over four-fifths are Hindus.

**HISTORY.**—The history of the Baroda State as such dates from the break-up of the Mughal Empire. The first Maratha invasion of Gujarat took place in 1705, and in these..... incursions Pilaji Gaikwar, who may be considered as the founder of the present ruling family, greatly distinguished himself. Sonabhad was the headquarters till 1766. Since 1723 Pilaji regularly levied tribute in Gujarat. His son Damaji finally captured Baroda in 1734, since when it has always been in the hands of the Gaikwars; but Mughal authority in Gujarat did not end until the fall of Ahmedabad, in 1763, after which the country was divided between the Gaikwar and the Peshwa. In spite of the fact that Damaji was one of the Maratha chiefs defeated at Panipat by Ahmed Shah, he continued to add to his territory. He died in 1768 leaving the succession in dispute between two rival sons. He was succeeded in turn by his sons Sayaji Rao I, Fattasing Rao, Mahaji Rao and Govind Rao. The last died, in 1800 and was succeeded by Anand Rao. A period of political instability ensued which was ended in 1802 by the help of the Bombay Government, who established the authority of Anand Rao at Baroda. By a treaty of 1805 between the British Government and Baroda, it was arranged *inter alia* that the foreign policy of the State should be conducted by the British, and that all differences with the Peshwa should be similarly arranged. Baroda was a staunch ally of the British during the wars with Bajji Rao Peshwa, the Pindari hordes and Holkar. But from 1820 to 1841, when Sayaji Rao II was Gaikwar, differences arose between the two Governments, which were settled by Sir James Carnac, Governor of Bombay in 1841. Ganpat Rao succeeded Sayaji Rao in 1817..... During his rule, the political supervision of Baroda was transferred to the Supreme Government. His successor Khande Rao, who ascended the *Gadi* in 1856, introduced many reforms. He stood by the British in the Mutiny. He was succeeded by his brother Maharao, in 1876. Maharao Rao was deposed in 1875 for "notorious misconduct" and "gross

misgovernment," but the suggestion that he had instigated the attempt to poison Col. Phayre, the Resident, was not proved. Sayaji Rao III a..... boy of 13 years of age who was descended from a distant branch of the family, was adopted as heir of Khande Rao in 1875 and is the present Gaikwar. He was invested with full powers in 1891.

**ADMINISTRATION.**—An executive Council, consisting of the principal officers of the State, carries on the administration, subject to the control of the Maharaja, who is assisted by a Dewan and other officers. A number of departments have been formed, which are presided over by officials corresponding to those in British India. The State is divided into four *prants* each of which is subdivided into *Mahals* and *Peta Mahals* of which there are in all 42. Attempts have for some years been made to restore village autonomy, and village panchayats have been formed which form part of a scheme for local self-government. There is a Legislative Department, under a Legal Remembrancer, which is responsible for making laws. There is also a Legislative Council, consisting of..... *ex-officio* nominated and elected members. A High Court at Baroda possesses jurisdiction over the whole of the State and hears all final appeals. From the decisions of the High Court, appeals lie in certain cases, to the Maharaja, who decides them on the advice of the Huzur Nyaya Sabha. The State Army consists of 5,084 Regular forces and 3,806 Irregular forces.

**FINANCE.**—In 1910-11, the total receipts of the State were Rs. 172 lakhs, and the disbursements Rs. 140 lakhs. The principal revenue heads are Land Revenue, Rs. 103 lakhs; Abkari, Rs. 16 lakhs; Opium, Rs. 13 lakhs, Railways, Rs. 9 lakhs; Interest, Rs. 7 lakhs; Tribute from other States, Rs. 5 lakhs. British currency was introduced in 1901.

**PRODUCTION AND INDUSTRY.**—Agriculture and pasture support 63 per cent. of the people. The principal crops are rice, wheat, gram, castor-oil, rapeseed, poppy, cotton, sun-hemp, tobacco, sugarcane, maize, and garden crops. The greater part of the State is held on *ryotwari* tenure. The State contains few minerals, except sandstone, which is quarried at Songir, and a variety of other stones which are little worked. There are 31 industrial or commercial concerns in the State registered under the State Companies' Act. There are five Agricultural Banks and 124 Co-operative Credit Societies in Baroda.

**COMMUNICATIONS.**—The B. B. & C. I. Railway crosses part of the Navsari and Baroda *prants*, and the Rajputana-Malwa Railway passes through the Kadi *prant*. A system of branch

lines has been built by the Baroda Durbar in all the four *prants*, in addition to which the Tapli Valley Railway and the Baroda-Godhra Chord line (B. B. & C. I.) pass through the State. The Railways constructed by the State are 369 miles in length and 152 miles are under construction. Good roads are not numerous.

**EDUCATION.**—The Education Department controls 2,981 institutions of different kinds, in 49 of which English is taught. The Baroda College is affiliated to the Bombay University. There are a number of high schools, technical schools, and schools for special classes, such as the jungle tribes and unclean castes. The State is "in a way pledged to the policy of free and compulsory primary education." It maintains a system of rural and travelling libraries. Ten per cent. of the population is

returned in the census as literate. Total expense on Education is about Rs. 18 lacs.

**CAPITAL CITY.**—Baroda City with the cantonment has a population of 99,345. It contains a public park, a number of fine public buildings, palaces and offices; and it is crowded with Hindu temples. The cantonment is to the North-west of the city and is garrisoned by an infantry battalion of the Indian Army. An Improvement Trust has been formed to work in Baroda City and has set itself an ambitious programme.

**RULER.**—His Highness Farzand-i-Khas-i-Dowlat-i-Inglishia Maharaja Sir Sayaji Rao Gackwar Sena Khas Khel, Samsher Bahadur, G.C.S.I., Maharaja of Baroda.  
*Resident.*—Lt.-Col. J. Impey, C.I.E. (*Offo*).  
*Dewan.*—B. L. Gupta, Esq., I.C.S. (*Retired*).

## KASHMIR.

Kashmir (known to Indians as Jammu) lies to the east of the Indus and to the west of the Ravi. It is a mountainous country with just a strip of level land along the Punjab frontier, and intersected by valleys of which many are of surpassing beauty and grandeur. It may be divided physically into two areas: the north-eastern comprising the area drained by the Indus with its tributaries, and the south-western, including the country drained by the Jhelum, the Kishanganga and the Chenab. The dividing line between those two areas is the great central mountain range. The area of the State is 84,432 square miles, and the population 3,158,126.

**HISTORY.**—Various poets have left more or less trustworthy records of the history of the valley down to 1586, when it was conquered by Akbar. Srinagar, the capital, had by then been long established, though many of the fine buildings erected by early Hindu rulers had been destroyed by the Mahomedan kings who first appeared in the 12th century. In the reign of Sikandar the population became almost entirely mahomedan. Akbar visited the valley three times. Jehangir did much to beautify it; but after Aurangzeb there was a period of disorder and decay, and by the middle of the eighteenth century the *Subah* of Kashmir was practically independent of Delhi. Thereafter it experienced the oppression of Afghan rule until it was rescued, in 1819, by an army sent by Ranjit Singh. Sikh rule was less oppressive than that of the Afghans. The history of the State as at present constituted is practically that of one man, a Dogra Rajput, Gulab Singh of Jammu. For his services to the Sikhs this remarkable man had been made Raja of Jammu in 1820, and he added largely to his territory by conquest. He held aloof from the war between the British and the Sikhs, only appearing as mediator after the battle of Sobraon (1846) when the British made over to him for Rs. 75 lakhs the present territories of the State. He had to fight for the valley and subsequently lost part of his State, Gilgit, over which the successors had at a heavy cost to reassert their claims. His son Ranbir Singh, a model Hindu, ruled from 1857 to 1885, when he was succeeded by his eldest son Major-General H. H. Maharaja Sir Partab Singh, G.C.S.I., G.C.I.E.

**ADMINISTRATION.**—For some years the Maharaja took no part in the administration of the State, but since 1905 he has exercised full powers, assisted by a Chief Minister—Rai Sahib Diwan Amar Nath, C.I.E.—a Home Minister, and a Revenue Minister. The four chief executive officers are the Governors of Jammu and of Kashmir, the Wazir Wazarat of Gilgit and the Wazir Wazarat of Ladakh. The real administrative power lies with the petty subordinate officers (*tahsildars*) who exercise revenue, civil, and criminal jurisdiction with regular stages of appeal; but distance and the absence of easy communications are practical checks on the use or abuse of appeals. The British Resident has his headquarters at Srinagar; there is also a Political Agent at Gilgit responsible to the Government of India for the administration of the outlying petty States; and a British Officer is stationed at Lcb to assist in the supervision of Central Asian trade. In the Dogras the State has splendid materials for an Army, which consists of 6,961 troops, of whom 3,370 are maintained as Imperial Service troops.

**FINANCE.**—The financial position of the State is strong, and it has more than 46 lakhs invested in Government of India securities. The total revenue last year was 93 lakhs, the chief items being land revenue, forests, customs and octroi.

**PRODUCTION AND INDUSTRY.**—The population is pre-eminently agricultural and pastoral. The system of land tenure has been described as "ryotwari in ruins," great complexity existing owing to the fact that there is no local law of rent and revenue. The principal food crop is rice, maize, cotton, saffron, tobacco, hops (autumn crops) and wheat, barley, poppy, beans (spring crops) are also grown. Sheep are largely kept. The State forests are extensive and valuable. Exploration for minerals has not been attempted on sound principles. Vast fields of friable, dusty coal have been found. Gold has been found at Gulmarg and Sapphires in Padar. The industries of manufacture are chiefly connected with sericulture, (the silk flature at Srinagar, the largest in the world, was destroyed by fire in July, 1912) oil-pressing and the manufacture of wine. The woollen cloth, shawls, and wood carving of the State are famous.

**COMMUNICATIONS.**—The State contains only 18 miles of railway, on the Tawi-Suchetgarh branch of the N.-W. Railway. The Jhelum is the only navigable river. At present there is much activity in improving road communications, but in many parts of the country wheeled traffic is unknown.

**PUBLIC WORKS.**—In 1904, a flood spill channel above Srinagar was constructed with a view to minimising the constant risk of floods; and it was hoped that the danger would be still further reduced by the carrying out of a scheme for lowering a part of the bed of the Jhelum, which has since been taken in hand. Good progress has been made with irrigation; but the most important schemes of recent years have been those for an electrical power station on the Jhelum River, and for a Railway into Kashmir. It was proposed to supply from this power station electrical energy for various State schemes (including the Jhelum dredging scheme) and for private enterprise and possibly for working the proposed Kashmir Rail-

way. The works were completed about 1907; and the scheme according to the latest reports, is working very satisfactorily. The proposal for a railway to Kashmir had been under discussion for many years, the nature of the country making the question of route a difficult one. In 1905, a decision was taken in favour of a line from Srinagar via the Jhelum Valley and Abbottabad, but the project has remained in abeyance pending the consideration of further schemes, among which are proposals for lines of ropeway from Jammu to Srinagar and from Srinagar to the western borders via the Jhelum Valley.

**EDUCATION.**—In educational matters Kashmir is the most backward tract in the whole of India. In the State as a whole only 2 in every 100 persons can read and write. The number of educational institutions has increased from 45 in 1891 to 379 in 1911.

*Resident:* S. M. Fraser.

*Political Agent,* at Gilgit, Major A. D. Macpherson.

### BALUCHISTAN AGENCY.

In this Agency are included the Native States of Kalat, Kharan and Las Bela. The Khan of Kalat is head of the Baluchistan tribal chiefs whose territories are comprised under the following divisions:—Jhalwan, Sarawan, Makran, Kacchhi, Domki-Kaheri-Umrani and Nasirabad Niabat. These districts form what may be termed Kalati Baluchistan, and occupy an area of 71,593 square miles. The inhabitants of the country are either Brahmuis or Baluchis, both being Mahomedans of the Sunni sect. The country is sparsely populated, the total number being about 470,336. It derives its chief importance from its position with regard to Afghanistan on the north-western frontier of British India. The relations of Kalat with the British Government are governed by two treaties, of 1854 and 1876, by the latter of which the Khan agreed to act in subordinate co-operation with the British Government. There are, however, agreements with Kalat in connection with the construction of the Indo-European telegraph, the cession of jurisdiction on the railways and in the Bolan Pass, and the permanent lease of Quetta, Nushki and Nasirabad. The Khan is assisted in the administration of the State by a Political Adviser lent by the British Government. The Governor-General's Agent in Baluchistan conducts the relations between the Government of India and the Khan, and exercises his general political supervision over the district. The revenue of the State is about Rs. 7,65,000. The present Khan is, His Highness Amir Sir Mahmud Khan of Kalat, G.C.I.E. He was born in 1864.

Kharan extends in a westerly and south-westerly direction from near Nushki and Kalat

to the Persian border. Its area is 14,210 square miles, it has a population of 19,610 and an annual average revenue of about Rs. 90,000.

The Chief of Kharan, Sardar Sir Farroz Khan, K.C.I.E., died in June 1909, and was succeeded by his son, Sardar Yakub Khan. The attitude of the new chief towards Government, and his administration generally were unsatisfactory. In 1911, he was murdered by the sepoys of his guard. Some trouble was caused by an uncle of the murdered chief, who declared himself Chief, but the Government of India finally recognised the succession of a son, Mir Habibulla Khan, and approved measures for the administration of the State during his minority.

Las Bela is a small State occupying the valley and delta of the Purul river, about 50 miles west of the Sind boundary. Area 8,441 square miles; population 56,109, chiefly Sunni Mahomedans, estimated revenue about Rs. 2,25,000. The Chief of Las Bela, known as the Jam, is bound by agreement with the British Government to conduct the administration of his State in accordance with the advice of the Governor-General's Agent. This control is exercised through the Political Agent in Kalat. Sentences of death must be referred for confirmation. The Jam also employs an approved Wazir, to whose advice he is subject and who generally assists him in the transaction of State business.

*Agent to the Governor-General for Baluchistan:* Lieut.-Col. J. Ramsay.

*Political Agent,* Kalat and Bolan Pass: Major A. B. Dew.

### RAJPUTANA AGENCY.

Rajputana is the name of a great territorial circle with a total area of about 130,462 square miles, which includes 18 Native States, two chiefships, and the small British province of Ajmer-Merwara. It is bounded on the west by Sind, on the north-west by the Punjab State of Bahawalpur, on the north and north-east by the Punjab, on the east by the United Pro-

vinces and Gwalior, while the southern boundary runs across the central region of India in an irregular zig-zag line. Of the Native States 17 are Rajput, 2 (Bharatpur and Dholpur) are Jat, and one (Tonk) is Mahomedan. The chief administrative control of the British district is vested *ex-officio* in the political officer, who holds the post of Governor-General's Agent for the

supervision of the relations between the several Native States of Rajputana and the Government of India. For administrative purposes they are divided into the following groups:—Alwar Agency; Bikanir Agency, Eastern Rajputana Agency, 3 States (Bharatpur, Dholpur, Karauli); Haroti and Tonk Agency, 3 States (principal States Bundi and Tonk); Jaipur Residency, 3 States (principal State, Jaipur); Kotah and Jhalawar Agency, 2 States; Mewar Residency; Southern Rajputana States Agency, 4 States (principal State, Banswara); Western Rajputana States Agency; 3 States (principal States, Marwar and Sirohi).

The Aravalli Hills intersect the country almost from end to end. The tract to the north-west of the hills is, as a whole, sandy, ill-watered and unproductive, but improves gradually from being a mere desert in the far west to comparatively fertile lands to the north-east. To the south-east on the Aravalli Hills lie higher and more fertile regions which contain extensive hill ranges and which are traversed by considerable rivers.

**COMMUNICATIONS.**—The total length of railways in Rajputana is 1,570 miles, of which 739 are the property of the British Government. The Rajputana-Malwa (Government) runs from Ahmedabad to Bandikui and from there branches to Agra and Delhi. Of the Native State railways the most important is the Jodhpur-Bikaner line from Marwar Junction to Hyderabad (Sind) and to Bikaner.

**INHABITANTS.**—Over 50 per cent. of the population are engaged in some form of agriculture; about 20 per cent. of the total population are maintained by the preparation and supply of material substances; personal and domestic service provides employment for about 5 per cent. and commerce for 2½ per cent. of the population. The principal language is Rajasthani. Among castes and tribes, the most numerous are the Brahmaus, Jats, Mahajans, Chamars, Rajputs, Minas, Gujars, Bhills, Malis, and Balais. The Rajputs are, of course, the aristocracy of the country, and as such hold the land to a very large extent, either as receivers of rent or as cultivators. By reason of their position as integral families of pure descent, as a landed nobility, and as the kinsmen of ruling chiefs, they are also the aristocracy of India; and their social prestige may be measured by observing that there is hardly a tribe or clan (as distinguished from a caste) in India which does not claim descent from, or irregular connection with, one of these Rajput stocks.

The population and area of the States are as follows:—

Name of State.	Area in square miles.	Population in 1911.
<b>Mewar Residency—</b>		
Udaipur .. ..	12,953	1,293,776
Banswara .. ..	1,946	165,463
Dungarpur .. ..	1,447	159,192
Partabgarh .. ..	880	62,704
<b>Western States Residency—</b>		
Jodhpur .. ..	34,963	2,057,553
Jaisalmer .. ..	16,062	88,311
Sirohi .. ..	1,964	189,127

Name of State.	Area in square miles.	Population in 1911.
<b>Jaipur Residency—</b>		
Jaipur .. ..	15,570	2,636,674
Kishangarh .. ..	858	87,191
Lawa .. ..	19	2,564
<b>Haroti-Tonk Agency—</b>		
Bundi .. ..	2,220	218,730
Tonk .. ..	1,114	303,181
Shahpura .. ..	405	47,397
<b>Eastern States Agency—</b>		
Bharatpur .. ..	1,982	628,665
Dholpur .. ..	1,155	270,973
Karauli .. ..	1,242	156,786
<b>Kotah-Jhalawar Agency—</b>		
Kotah .. ..	5,684	639,089
Jhalawar .. ..	810	86,271
Bikaner .. ..	23,311	700,983
Alwar .. ..	3,141	791,688

**Udaipur State**, (also called Merwar) was founded in about 1559. The capital city is Udaipur, which is beautifully situated on the slope of a low ridge, the summit of which is crowned by the Maharajah's palace, and to the north and west, houses extend to the banks of a beautiful piece of water known as the Pichola Lake in the middle of which stand two island palaces. It is situated near the terminus of the Udaipur-Chitor Railway, 697 miles north of Bombay. The present ruler is His Highness Maharajadhiraja, Maharana Sir Patch Singh Bahadur, a.s.s.i., G.C.I.E., who was born in 1849 and succeeded in 1884. He is the head of the Seesodia Rajputs. The administration is carried on by the Maharana, assisted by two ministerial officers who, with a staff of clerks, form the chief executive department in the State. The revenue and expenditure of the State are now about 26½ and 20 lakhs a year respectively. Udaipur is rich in minerals which are little worked. Its archaeological remains are numerous, and stone inscriptions dating from the third century have been found.

**Banswara State**, the southernmost in Rajputana, became a separate State about 1530. Towards the end of the eighteenth century Banswara became more or less subject to the Marathas, and paid tribute to the Raja of Dhar. In 1812 the Maharawal offered to become tributary to the British Government on condition of the expulsion of the Marathas, but no definite relations were formed with him till the end of 1818. The present ruler is His Highness Maharawal Sri Shambhu Singh Bahadur, who was born in 1868 and succeeded his father, who had ruled for 61 years, in 1905. The normal revenue is about 1·75 lakhs and the expenditure about 1·35 lakhs.

**Dongarpur State**, with Banswara, formerly comprised the country called the Pagar. It was invaded by the Mahrattas in 1818. As in other States, inhabited by hill tribes, it became necessary at an early period of British supremacy to employ a military force to coerce the Bhils. The present Chief of Dongarpur is His Highness Mahrawal Bijay Singh Bahadur. During his minority the State is administered by a Political Officer, a chief Executive Officer

and a Consultative Council of two. Revenue about 2 lakhs; expenditure 1·4 lakhs.

**Partabgarh State**, formerly called the Kanthao, was founded in the sixteenth century by a descendant of Rana Mokai of Mewar. The town of Partabgarh was founded in 1698 by Partab Singh. In the time of Jaswant Singh (1775-1844), the country was overrun by the Marathas, and the Maharawal only saved his State by agreeing to pay Holkar a tribute of *Salim Shahi* Rs. 72,720, in lieu of Rs. 15,000 formerly paid to Delhi. The first connexion of the State with the British Government was formed in 1804; but the treaty then entered into was subsequently cancelled by Lord Cornwallis, and a fresh treaty, by which the State was taken under protection, was made in 1818. The tribute to Holkar is paid through the British Government, and in 1904 was converted to Rs. 36,300 British currency. The present ruler is His Highness Maharawal Sir Raghunath Singh Bahadur, K.C.I.E., who was born in 1859 and succeeded in 1890. The State is governed by the Maharawal with the help of a Minister, and, in judicial matters, of a Committee of eleven members styled the Raj Sabha. Revenue 1·7 lakhs; expenditure 1·4 lakhs. The finances of the State are under the control of the Resident in Mewar.

**Jodhpur State**, the largest in Rajputana, also called Marwar, consists largely of desolate, sandy country. The Maharaja of Jodhpur is the head of the Rathor Clan of Rajputs and claims descent from Rana the deified king of Ajodhya. The earliest known king of the clan lived in the sixth century from which time onwards their history is fairly clear. The foundation of Jodhpur dates from about 1212, and the foundations of Jodhpur City were laid in 1459 by Rao Jodha. The State came under British protection in 1818. In 1839 the British Government had to interfere owing to misrule, and the same thing occurred again in 1868. Jaswant Singh succeeded in 1873 and reformed the State. His son Sardar Singh was invested with powers in 1898, the minority rule having been carried on by his uncle Maharaja Partab Singh. The State is governed by the Maharaja, two ministers, and a Consultative Council. Revenue 56 lakhs; expenditure 36 lakhs.

**Jaisalmer State** is almost entirely a sandy waste forming part of the great Indian Desert. The Chiefs of Jaisalmer are Rajputs of the Jadon clan and claim descent from Krishna. Jaisalmer City was founded in 1156, and the State was taken under British protection in 1818. In 1844, after the British conquest of Sind the forts of Shahgarh, Garsia, and Ghotaru, which had formerly belonged to Jaisalmer, were restored to the State. The present Chief is His Highness Maharajadhiraja Maharawal Sallvahan Bahadur. During his minority the administration is conducted by a Diwan and Council of four members, under the superintendence of the Resident, Western Rajputana States. Revenue about one lakh.

**Sirohi State** is much broken up by hills of which the main feature is Mount Abu, 5,650 feet. The Chiefs of Sirohi are Deora Rajputs, a branch of the famous Chauhan clan which furnished the last Hindu kings of Delhi. The present capital of Sirohi was built in 1425. The city suffered

in the eighteenth century from the wars with Jodhpur and the depredations of wild Mina tribes. Jodhpur claimed suzerainty over Sirohi but this was disallowed and British protection was granted in 1853. The present ruler is His Highness Maharao Sir Kesri Singh Bahadur, G.C.I.E., K.C.S.I. The State is ruled by the Maharao with the assistance of a Diwan and other officials. Revenue about 3½ lakhs; expenditure 2·8 lakhs.

**Jaipur State** is the fourth largest in Rajputana. It consists, for the most part, of level and open country. The Maharaja of Jaipur is the head of the Kachwaha clan of Rajputs, which claims descent from Kusa, the son of Rama, king of Ajodhya, and the hero of the famous epic poem the *Ramayana*. The dynasty in Eastern Rajputana dates from about the middle of the twelfth century, when Amber was made the capital of a small State. The Chiefs of that State acquired fame as generals under the Mughals in later centuries, one of the best known being Sawai Jal Singh in the eighteenth century who was remarkable for his scientific knowledge and skill. It was he who moved the capital from Amber and built the present city of Jaipur and elevated the State above the principalities around. On his death a part of the State was annexed by the Jats of Bharatpur and internal disputes brought Jaipur to great confusion. British protection was extended to Jaipur in 1818, but the State continued to be disturbed and a Council of Regency was appointed, which governed up to 1851, when Maharaja Ram Singh assumed full powers. He nominated as his successor Kaim Singh who succeeded in 1880, under the name of Sawai Madho Singh II, and is the present ruler. He was born in 1862, and, in consideration of his youth, the administration was at first conducted by a Council under the joint presidency of the Maharaja and the Political Agent. He was invested with full powers in 1882. In 1887, his salute was raised from 17 to 19 guns as a personal distinction, followed in 1896 by two additional guns. In 1888 he was created a G.C.S.I. In 1901 a G.C.I.E., and in 1903 a G.C.V.O. In 1904 he was made honorary colonel of the 13th Rajputs, and in 1911 a Major General. Among important events of His Highness's rule may be mentioned the raising of the Imperial Service Transport Corps in 1889-90; the construction of numerous irrigation works, hospitals and dispensaries; and the gift of 20 lakhs as an endowment to the Indian People's Famine Relief Trust. Jaipur City is the largest town in Rajputana and is one of the few eastern cities laid out on a regular plan. It contains, in addition to the Maharaja's Palace, many fine buildings. The administration of the State is carried on by the Maharaja assisted by a Council of ten members. The military force consists of an Imperial Service Transport Corps which has twice served in Frontier campaigns and about 5,000 infantry, 700 cavalry and 860 artillerymen. The normal revenue is about 65 lakhs; expenditure about 59 lakhs.

**Kishangarh State** is in the centre of Rajputana and consists practically of two narrow strips of land separated from each other; the northern mostly sandy, the southern generally flat and fertile. The Chiefs of Kishangarh belong to the Rathor clan of Rajputs and are

descended from Raja Udai Singh of Jodhpur, whose second son founded the town of Kishangarh in 1811. The State was brought under British protection in 1818, when the Chief of that time appeared to be insane. After various disputes necessitating British mediation, the State entered into good hands and was well ruled during the latter part of the nineteenth century. The present ruler is Major His Highness Maharaja-jadhiraja Sir Madan Singh Bahadur, K.C.S.I., K.C.I.E., who was born in 1884 and was invested with powers in 1905. He administered the State with the help of a Council of two members. Revenue 4.6 lakhs: Expenditure 4.2 lakhs.

**Lawa State or takurat, of Rajputana** is a separate chiefship under the protection of the British Government and independent of any Native States. It formerly belonged to Jaipur and then became part of the State of Tonk. In 1867, the Nawab of Tonk murdered the Thakur's uncle and his followers, and Lawa was then raised to its present State. The Thakurs of Lawa belonged to the Naruka sept of the Kachwaha Rajputs. The present Thakur, Mangal Singh, was born in 1873, and succeeded to the estate in May, 1892. Revenue about Rs. 11,000.

**Bundi State** is a mountainous territory in the south-east of Rajputana. The Chief of Bundi is the head of the Hara sept of the great clan of Chauhan Rajputs and the country occupied by this sept has for the last five or six centuries been known as Harauti. The State was founded in the early part of the fourteenth century and constant feuds with Mewar and Malwa followed. It threw in its lot with the Mahomedan emperors in the sixteenth century. In later times it was constantly ravaged by the Marathas and Pindaries and came under British protection in 1818 at which time it was paying tribute to Holkar. The present ruler of this State—which is administered by the Maharao Raja and a Council of 5 in an old-fashioned but popular manner—is His Highness Maharao Raja Sir Raghubir Singh Bahadur, G.C.I.E., G.C.V.O., K.C.S.I. He was born in 1869 and succeeded in 1889. Revenue about 6 lakhs: Expenditure 5.6 lakhs.

**Tonk State**—Partly in Rajputana and partly in Central India, consists of six districts separated from each other. The ruling family belongs to the Pathans of Afghans of the Buncr tribe. The founder of the dynasty was Amir Khan, a General in the army of Holkar at the end of the eighteenth century. He received a conditional guarantee of the lands he held under the Afghans from Holkar in 1817. His son was deposed in 1867 owing to misrule. The present ruler of the State is His Highness Nawab Sir Muhammad Ibrahim Ali Khan Bahadur, G.C.I.E. The administration is conducted by the Nawab and a Council of four members: but the Political Agent takes an active part in the guidance of the administration and the finances—owing to the indebtedness of the State. Revenue 11 lakhs: Expenditure 9 lakhs.

**Shahpura Chiefship** is a small pastoral State. The ruling family belongs to the Seesodia clan of Rajputs. The Chiefship came into existence about 1629, being a grant from the Emperor Shah Jahan to one Sujan Singh. The present Chief is Sir Nahar Singh, K.C.I.E. who succeeded by adoption in 1870 and received

full powers in 1876.\* In addition to holding Shahpura by grant from the British Government the Raja Dhiraj possesses the estate of Kachhola in Udaipur for which he pays tribute and does formal service as a great noble of that State. Revenue 3 lakhs: Expenditure 2.6 lakhs.

**Bharatpur State** consists largely of an immense alluvial plain, watered by the Banganga and other rivers. It passed into the hands of Mahomed Ghori at the end of the twelfth century and for 500 years was held by whatever dynasty ruled in Delhi. The present ruling family are Jats, of the Sinsinwar clan, who trace their pedigree to the eleventh century. Bharatpur sided with the Marathas in the war of 1804 and was unsuccessfully besieged by Lord Lake. Owing to the appearance of an usurper operations against it were resumed in 1825, and in the following year the capital was captured by Lord Combermere. The present chief is a minor, Maharaja Sawal Kishna Singh Bahadur, who was born in 1899 and succeeded in the following year, his father, Ram Singh, having been deposed for the murder of one of his servants. The administration is carried on by a Council of four members. Revenue 31 lakhs: Expenditure 28 lakhs.

**Dholpur State**, the easternmost State in Rajputana, has changed hands an unusual number of times. It was occupied by the British in 1803 and restored to the Gwalior Chief who formerly owned it, but by a fresh arrangement of 1805 it was constituted a State with other districts and made over to Maharaj Rana Kirat Singh, in exchange for his territory of Gohad which was given up to Sindha. The ruling family are Jats of the Ramraolia clan, the latter name being derived from a place near Agra where the family held land in the twelfth century. The present chief—who is assisted in the administration by five principal officers—is Captain H. H. Maharaj Rana Sir Ram Singh Lokindar Bahadur, K.C.I.E. He was born in 1883 and succeeded in 1901. Revenue 9.6 lakhs: Expenditure 8.4 lakhs.

**Karauli State** is a hilly tract in Eastern Rajputana, of which the ruler is the head of the Jadon clan of Rajputs who claim descent from Krishna and were at one time very powerful. On the decline of the Mughal power the State was subjugated by the Marathas, but by the treaty of 1817 it was taken under British protection. Its subsequent history is of interest chiefly for a famous adoption case, in 1852. The present ruler is H. H. Maharaja Sir Banwar Pal Deo, G.C.I.E., who was born in 1864, installed in 1889, and invested with powers in 1889. He is assisted by a council of five members. Revenue 5 lakhs: Expenditure 4.4 lakhs.

**Kotah State** belongs to the Hara sept of the clan of Chauhan Rajputs, and the early history of their house is, up to the 17th century, identical with that of the Bundi family from which they are an offshoot. Its existence as a separate State dates from 1625. It came under British protection in 1817, but a dispute as to the succession made armed intervention necessary in 1821 when the Maharao was defeated at the battle of Mangrol. This dispute (due to the fact that an arrangement had been made by which one person—Zakim Singh—was recognized as the titular chief and another—Ummed

Singh—as the guaranteed\*actual ruler) broke out again in the thirties when it was decided with the consent of the Chief of Kotah to dismember the State and create a new principality of Jhalawar as a separate provision for the descendants of Zalim Singh. The present ruler is H. H. Maharao Sir Umed Singh Bahadur, G.C.S.I., G.C.I.E., who was born in 1873 and invested with full powers in 1896. In administration he is assisted by a Diwan. The most important event of his rule has been the restoration, on the deposition of the late chief of the Jhalawar State, of 10 out of the 17 districts which had been ceded in 1838 to form that principality. Revenue 31 lakhs: Expenditure 26 lakhs.

**Jhalwar State** (for history see under Kotah) consists of two separate tracts in the south-east of Rajputana. The ruling family belongs to the Jhala clan of Rajputs. The last ruler was deposed for misgovernment in 1896, part of the State was reassigned to Kotah, and Kunwar Bhawani Singh, son of Thakur Chhatarsal of Fatehpur, was selected by Government to be the Chief of the new State. He was born in 1874 and was created a K.C.S.I. in 1908. He is assisted in administration by a Diwan, and has done much to extend education in the State. Revenue 4 lakhs.

**Bikaner State**, the second largest in Rajputana, consists largely of sandy and ill-watered land. It was founded by Bijka, a Rathor Rajput, the sixth son of a Chief of Marwar, in the 15th century. Rai Singh, the first Raja, was one of Akbar's most distinguished generals, and built the main fort of Bikaner. Throughout the 18th century there was constant fighting between Bikaner and Jodhpur. In 1818 the Maharaja invited the assistance of British troops to quell a rebellion, and subsequently a special force had to be raised to deal with the dacoits on the southern borders of the State. The Thakurs of the State continued to give trouble up to the eighties. The present chief is Colonel H. H. Maharajah Sir Ganga Singh Bahadur, G.C.S.I., G.C.I.E., A.D.C. to the King, who was born in 1880 and invested with full powers in 1898. He raised an Imperial Service Camel Corps which served in China and Somaliland, and His Highness served in the former campaign himself, being mentioned in despatches. In 1900 he was awarded the first class Kaisar-i-Hind medal for the active part he took in relieving the great famine of 1899-1900. He

is an honorary LL.D. of Cambridge. In administration His Highness is assisted by five secretaries, to each of whom are allotted certain departments; and there is a council of five members which is primarily a judicial body, but is consulted in matters of importance. The normal revenue is Rs. 26 lakhs and the expenditure 21 lakhs: there are no debts. A coal mine is worked at Palana, 14 miles south of the capital.

**Alwar State** is a hilly tract of land in the East of Rajputana. Its chiefs belong to the Lalawat branch of the Naruka Rajputs, an offshoot from the Kachwaha Rajputs, of whom the Maharaja of Jaipur is the head. The State was founded by Pratap Singh, who before his death in 1791 had secured possession of large portions of the Jaipur State. His successor sent a force to co-operate with Lord Lake in the war of 1803 and an alliance was concluded with him in that year, when the boundaries of the State as now recognised were fixed. Various rebellions and disputes about succession mark the history of the State during the earlier part of the nineteenth century. The present chief, H. H. Maharaja Sir Sawal Jai Singh Bahadur, K.C.S.I., K.C.I.E., who was born in 1882, succeeded his father in 1892 and was invested with powers in 1903. He carries on the administration with the assistance of a Council of three members and various heads of departments. The normal revenue and expenditure are about Rs. 32 lakhs a year. The State maintains an imperial service regiment of cavalry, another of infantry, and an irregular force. The late Maharaja was the first chief in Rajputana to offer (in 1888) aid in the defence of the Empire. The capital is Alwar on the Rajputana-Malwa Railway, 98 miles south-west of Delhi.

#### RAJPUTANA.

*Agent to Governor-General*.—Sir E. G. Colvin.

#### MEWAR.

*Resident*.—Lieut.-Col. J. L. Kaye.

#### JAIPUR.

*Resident*.—Lieut.-Col. S. P. Bayley.

#### EASTERN RAJPUTANA STATES.

*Political Agent*.—Lieut.-Col. K. D. Erskine.

#### WESTERN RAJPUTANA STATES.

*Resident*.—Lieut.-Col. C. J. Windham.

#### HARAOTI AND TONK.

*Political Agent*.—Lieut. H. B. Peacock.

#### KOTA AND JHALAWAR.

*Political Agent*.—Major H. B. Peacock

### CENTRAL INDIA AGENCY.

Central India is the name given to the country occupied by the Native States grouped together under the supervision of the Political Officer in charge of the Central India Agency. These States lie between 21° 24' and 26° 32' N. lat. and between 74° 0' and 83° 0' E. long. The British districts of Jhansi and Lalitpur divide the agency into two main divisions—Bundelkhand and Baghelkhand lying to the east, and Central India proper to the west. The total area covered is 78,772 square miles, and the population (1911) amounts to 9,3,080. The great majority of the people are Hindus. The principal States are eight in number—Gwalior, Indore, Bhopal, Rewa, Dhar, Jaora, Datia and Orchal of which two, Bhopal and Jaora, are

Mahomedan and the rest are Hindu. Besides these there are a multitude of petty States held by their rulers under the immediate guarantee of the British Government, but having feudal relations with one or other of the larger States. The total number of States amounts to 153. For administrative purposes they are divided into the following groups: Baghelkhand Agency, 12 States (principal State Rewa); Bhopal Agency, 19 States (principal Bhopal); State Bhopawar Agency, 21 States (principal State Dhar); Bundelkhand Agency, 22 States (principal States Datia and Orchal); Gwalior Agency, 32 States (principal State Gwalior); Indore Residency, 9 States (principal State, Indore); Malwa Agency, 38 States (principal



State, Jaora). The Agency may be divided into three natural divisions, the plateau, lowlying, and hilly. The plateau tract includes the Malwa plateau, the Highland tract stretching from the great wall of the Vindhya to Marwar, the land of open rolling plains. The lowlying tract embraces Northern Gwalior and stretches across into Bundelkhand and Baghelkhand up to the Kaimur Range. The hilly tract lies along the ranges of the Vindhya and the Satpuras. There agriculture is little practised, the inhabitants being mostly members of the wild tribes. The territories of the different States are much intermingled, and their political relations with the Government of India and each other are very varied. Eleven Chiefs have direct treaty engagements with the British Government.

The following list gives the approximate size, population and revenue of the eight principal States above mentioned:—

Name.	Area in square miles.	Population.	Revenue.
			Rs. lakhs.
Gwalior ..	25,133	3,102,279	140
Indore ..	9,506	1,007,856	70
Bhopal ..	6,902	730,383	30
Itewah ..	13,000	1,514,843	53
Dhar ..	1,783	154,070	9
Jaora ..	568	75,951	8
Datia ..	911	154,603	9
Orcha ..	2,079	330,032	11

**Gwalior.**—The house of Sindhia traces its descent to a family of which one branch held the hereditary post of patel in a village near Satara. The head of the family received a patent of rank from Aurangzeb. The founder of the Gwalior House was Ranoji Sindhia who is said to have been a personal attendant on the Peshwa Bajirao. In 1726 together with Malhar Rao Holkar, the founder of the house of Indore, he was authorised by the Peshwa to collect revenues and he fixed his headquarters at the ancient city of Ujjain, which became the capital of the Sindhia dominions. Gwalior subsequently played a leading part in shaping the history of India. The reverses which Sindhia's troops met with at the hands of the British in 1778 and 1780 led to the treaty of Salbai (1782), which made the British arbiters in India and recognised Sindhia as an independent Chief and not as a vassal under the Peshwa. Subsequently Sindhia's military power, developed by the French Commander DeBoigne, was completely destroyed by the British victories of Ahmednagar, Assaye, Asargarh and Laswari.

The present ruler is His Highness Mahadho Rao Sindhia, G.C.V.O., G.C.S.I., A.P.C. to the King. He succeeded in 1886 and obtained powers in 1894. In 1901 he went to China during the war: he holds the rank of honorary Colonel of the British Army and the honorary degree of LL.D., Cambridge. The administration is controlled by the Maharaja assisted by the Sadr Board of seven members.

The northern part of the State is traversed by the G. I. P. Railway and two branches run from Bhopal to Ujjain and from Bina to Baran. The Gwalior Light Railway runs for 185 miles from Gwalior to Bhind. The main industries are connected with cotton which is ginned and

pressed in factories at many places. The State maintains three regiments of Imperial Service Cavalry, two battalions of Imperial Service Infantry and a transport corps. Lashkar, the capital city, is two miles to the south of the ancient city and the fort of Gwalior. Annual expenditure 133 lakhs.

**Indore.**—The Holkars of Indore belong to the shepherd class, the founder of the house, Malhar Rao Holkar, being born in 1693. His soldierly qualities brought him to the front under the Peshwa, who took him into his service and employed him in his conquests. When the Maratha power was broken at the battle of Panipat, in 1761, Malhar Rao had acquired vast territories stretching from the Deccan to the Ganges. He was succeeded by a lunatic son, who again was succeeded by his mother, Ahlya Bai, whose administration is still looked upon as that of a model ruler. Disputes as to the succession and other causes weakened this powerful State, and, when it assumed a hostile attitude on the outbreak of war in 1817 between the British and the Peshwa, Holkar was compelled to come to terms. The Treaty of Mandasor in 1818 still governs the regulations existing between the State and the British Government. In the mutiny of 1857 when Holkar was unable to control his troops he personally gave every possible assistance to the authorities at Mhow.

In 1903 Sivaji Rao abdicated in favour of his son, His Highness Maharaja Tukoji Rao Holkar, the present ruler, who was born in 1890, and was formally invested with ruling powers in November 1911. In the administration His Highness is assisted by his Chief Minister (Sir Narayan Chandavarkar) and a Council of 10 Ministers. The State Army consists of 519 Imperial Service Troops and 1,620 State forces. The capital is Indore City on the Ajmer-Khandwa Section of the Rajputana-Malwa Railway. The ordinary revenue for 1913-14 is estimated at Rs. 85,62,100 and the ordinary expenditure estimated for that year is Rs. 66,36,800.

**Bhopal.**—Bhopal State was founded by Dost Muhammad Khan, an Afghan from Tirah, who went to Delhi in 1708 in search of employment. Obtaining a lease of the Berasia Perganas he extended his dominions, assumed independence, and adopted the title of Nawab. Of subsequent rulers the most noticeable is Mamulla, a lady of remarkable power, who controlled the State for 50 years. In the early part of the nineteenth century the State successfully withstood the combined attacks of Gwalior and Nagpur, and, by the agreement of 1817, Bhopal undertook to assist the British with a contingent force and to co-operate against the Pindari bands.

The present Begum is Her Highness Nawab Sultan Jahan, G.C.S.I., G.C.I.E., C.I., who succeeded in 1901 and personally conducts the administration of her State assisted by her eldest son, Nawab Mahomed Nasirulla Khan. The State Army consists of 1,744 men, including a regiment of Imperial Service Cavalry commanded by a son of the present ruler. The capital is Bhopal City, at the Junction of the Midland Section of the G. I. P. Railway and the Bhopal-Ujjain Railway.

**Rewah.**—This State lies in the Baghelkhand Agency, and falls into two natural divisions separated by the scarp of the Kaimur range. Its Chiefs are Baghel Rajputs descended from the

Solanki clan which ruled over Gujrat from the tenth to the thirteenth century. In 1812 a body of Pindaries raided Mirzapur from Rewah territory and the chief, who had previously rejected overtures for an alliance, was called upon to accede to a treaty acknowledging the protection of the British Government. During the Mutiny, Rewah offered troops to the British, and for his services then, various parganas, which had been seized by the Marathas, were restored to the Rewah Chief. The present chief is H. H. Maharaja Sir Venkat Raman Singh, G.C.S.I., who was born in 1876. He assisted in the administration by two Commissioners, one for revenue matters and one for judicial. The State forces consist of about 1,700 men. The State is famous for its archaeological remains and is rich in minerals, coal being mined at Umaria. The average expenditure is Rs. 11 lakhs.

**Dhar.**—This State, under the Bhopawar Agency, takes its name from the old city of Dhar, long famous as the capital of the Paramara Rajputs, who ruled over Malwa from ninth to the thirteenth century and from whom the present chiefs of Dhar—Ponwar Marathas—claim descent. In the middle of the 18th century the Chief of Dhar, Anand Rao, was one of the leading chiefs of central India, sharing with Holkar and Sindhia the rule of Malwa. But in 1819, when a treaty was made with the British, the State had become so reduced that it consisted of little more than the capital. The ruler is H. H. Raja Udaji Rao Ponwar, K.C.S.I., who was born in 1886, and has control of all civil, judicial, and ordinary administrative matters. There are 22 feudatories, of whom 13 hold under a guarantee from the British Government. The average expenditure is about 8 lakhs.

**Jaora State.**—This State is in the Malwa Agency and has its head quarters at Jaora town. The first Nawab was an Afghan from Swat, who had come to India to make his fortune, found employment under the freebooter Amir Khan, and obtained the State after the treaty of Mandasor in 1817. The present chief is H. H. Sir Mahomed Iftikar Ali Khan, K.C.I.E., who was born in 1883 and is an honorary major in the Indian army. The soil of the State is among the richest in Malwa, being mainly of the best black cotton variety, bearing excellent crops of poppy. The average expenditure is four lakhs.

**Datia State.**—The Chiefs of this State, in the Bundelkhand Agency, are Bundela Rajputs of the Orchha house. The territory was granted by the chief of Orchha to his son Bhagwan Rao in 1626, and this was extended by conquest and by grants from the Delhi emperors. The present chief is H. H. Maharaja Lokendra Gobind Singh Bahadur, who was born in 1886 and succeeded in 1907. His predecessor had succeeded as a minor in 1857, and the early part of his administration was disturbed by constant disputes with the thakurs of Baroni as to the succession.

**Orchha State.**—The chiefs of this State are Bundela Rajputs claiming to be descendants of the Gaharwars of Benares. The State had no independent existence till comparatively modern times and its early history is that of British Bundelkhand. It entered into relations with the British by the treaty made in 1812. The present ruler is His Highness Sir Pratap Singh, G.C.S.I., G.C.I.E., K.C.B., who was born in 1854. He has the title of Saranad-i-Rajaha-i-Bundel-

khand Maharaja Mahendra Sawal Bahadur. The State has a normal revenue of seven lakhs and the expenditure is about 6·5 lakhs. The State Army consists of 1,350 men. The capital is Tikamgarh: Orchha, the old capital, has fallen into decay but is a place of interest on account of its magnificent buildings of which the finest were erected by Bir Singh Deo, the most famous ruler of the State (1605-1627).

*Agent to Governor-General*—(Vacant)

INDORE.

*Resident*—J. B. Wood.

BHOPAL,

*Political Agent*—W. S. Davis.

BUNDELKHAND.

*Political Agent*—Lieut.-Col. C. H. Pritchard.

BAGHELKHAND.

*Political Agent*—Lieut.-Col. R. B. Berkeley.

BHOPAWAR.

*Political Agent*—Capt. H. R. N. Pritchard.

## Sikkim.

Sikkim is bounded on the north and north-east by Tibet, on the south-east by Bhutan, on the south by the British district of Darjiling, and on the west by Nepal. The population consists of the races of Lepcha and Bhoti, and the Nepali tribe, Limbu. It forms the direct route to the Chumbi Valley in Tibet. The main axis of the Himalayas, which runs east and west, forms the boundary between Sikkim and Tibet. The Singalila and Chola ranges, which run southwards from the main chain, separate Sikkim from Nepal on the west, and from Tibet and Bhutan on the east. From the eastern flank of the Singalila range rise the great snow peaks of Kinchinjunga (28,146 feet), one of the highest mountains in the world; it throws out a second spur terminating at Tendong. The Chola range which is much loftier than that of Singalila, leaves the main chain at the Dongkya mountain.

Tradition says that the ancestors of the rajas of Sikkim originally came from the neighbourhood of Lhasa in Tibet. The State was twice invaded by the Gurkhas at the end of the eighteenth century. On the outbreak of the Nepal War in 1814, the British formed an alliance with the Raja of Sikkim and at the close of the war the Raja was rewarded by a considerable accession of territory. In 1835 the Raja granted the site of Darjiling to the British and received Rs. 3,000 annually in lieu of it. This grant was stopped and a part of the State was annexed for the seizure and detention of Dr. Campbell, the Superintendent of Darjiling, and Dr. Hooker, the famous naturalist, in 1849. The State was previously under the Government of Bengal, but was brought under the direct supervision of the Government of India in 1906. The State is thinly populated, the area being 2,818 square miles, and the population 87,920, chiefly Buddhists and Hindus. The most important crop is maize. There are several trade routes through Sikkim from Darjiling District into Tibet; but owing partly to the natural difficulties of the country, and partly to the jealousy of the Tibetan authorities, trade over these roads has never been fully developed. In the convention of 1890 provision was made for the opening of a trade route; but the results were disappointing, and the failure of the Tibetans to fulfil their obligations resulted in 1904

in the dispatch of a mission to Lhasa, where a new convention was signed. Trade with British has largely increased in recent years, and in 1911-12 reached a total value of 24 lakhs. A number of good roads have been constructed in recent years. The present ruler is His Highness Maharajah Sir Thotub Namgye, K.C.I.E., who was born in 1860 and succeeded in 1874. The Political Officer stationed at Gangtok advises and assists the Maharajah and his Council, but no rules have been laid down for the civil and criminal administration. The average revenue is Rs. 2,85,000.

*Political Officer in Sikkim: C. A. Bell.*

### Bhutan.

Bhutan extends for a distance of approximately 190 miles east and west along the southern slopes of the central axis of the Himalayas, adjacent to the northern border of Eastern Bengal and Assam. Its area is 18,000 square miles and its population, consisting of Buddhists and Hindus, has been estimated at 300,000. The country formerly belonged to a tribe called Tekpa, but was wrested from them by some Tibetan soldiers about the middle of the seventeenth century. British relations with Bhutan commenced in 1772 when the Bhotias invaded the principality of Cooch Behar and British aid was invoked by that State. After a number of raids by the Bhutanese into Assam, an envoy (the Hon. A. Eden) was sent to Bhutan, who was grossly insulted and compelled to sign a treaty surrendering the Duars to Bhutan. On his return the treaty was disallowed and the Duars annexed. This was followed by the treaty of 1865, by which the State's relations with the Government of India were satisfactorily regulated. The State formerly received an allowance of half a lakh a year from the British Government in consideration of the cession in 1865 of some areas on the southern borders. This allowance was doubted by a new treaty concluded in January 1910, by which the Bhutanese Government bound itself to be guided by the advice of the British Government in regard to its external relations, while the British Government undertook to exercise no interference in the internal administration of Bhutan. On the occasion of the Tibet Mission of 1904, the Bhotias gave strong proof of their friendly attitude. Not only did they consent to the survey of a road through their country to Chumbi, but their ruler, the Tongsa Penlop, accompanied the British troops to Lhasa, and assisted in the negotiations with the Tibetan authorities. For these services he was made a K.C.I.E., and he has since entertained the British Agent hospitably at his capital. The ruler is now known as H. H. the Maharaja of Bhutan, Sir Ugyen Wangchuk, K.C.S.I., K.C.I.E. At the head of the Bhutan Government, there are nominally two supreme authorities: the Dharma Raja, known as Shapting Renipoché, the spiritual head; and the Deb or Depa Raja, the temporal ruler. The Dharma Raja is regarded as a very high incarnation of Buddha, far higher than the ordinary incarnations in Tibet, of which there are several hundreds. On the death of a Dharma Raja a year or two is allowed to elapse, and his reincarnation then takes place, always in the Choje, or royal family of Bhutan.

Cultivation is backward and the chief crop is maize. The Military force consists of local levies under the control of the different chiefs. They are of no military value.

### Nepal.

The kingdom of Nepal is a narrow tract of country extending for about 520 miles along the southern slope of the central axis of the Himalayas. It has an area of about 54,000 square miles, with a population of about 4,000,000, chiefly Hindus. The greater part of the country is mountainous, the lower slopes being cultivated. Above these is a rugged broken wall of rock leading up to the chain of snow-clad peaks which culminate in Mount Everest (29,002 feet) and others of slightly less altitude. The country was conquered during the Newar dynasty by the Gurkhas under Prithvi Narayan, who became Raja of Nepal. In 1846 the head of the Jung family obtained from the sovereign the perpetual right to the office of Prime Minister of Nepal, and the right is still enjoyed by his descendant. In 1850 Jung Bahadur paid a visit to England and was thus the first Native Chief to leave India and to become acquainted with the power and resources of the British nation. The relations of Nepal with the Government of India are regulated by the treaty of 1814 and subsequent agreements, but the political status of Nepal is difficult to define. It may be said to stand intermediate between Afghanistan and the Native States of India. The point of resemblance to Afghanistan is in the complete freedom which Nepal enjoys in the management of its internal affairs, while in both countries foreign relations are controlled by the Indian Government. The analogy to the Native States is that, by treaty, Nepal is obliged to receive a British Resident at Katmandu and cannot take Europeans into service without the sanction of the Indian Government. But, for the reasons above given, the functions of the Resident differ from those that are commonly exercised by Residents at Native Courts.

Nepal is also brought into relations with China; whose nominal suzerainty she acknowledges. It is an influence that weighs light, and consists in the despatch, every five years, of a mission with presents to the ruling Emperor. This mission, though it may at one time have carried a certain amount of political significance, has now mainly a trading aspect. Its expenses are paid by the Chinese from the time it crosses the Nepalese frontier, and a brisk trade is carried on throughout the journey.

From the foregoing account of the history of Nepal it will be seen that the Government of the country has generally been in the hands of the Minister of the day. Since the time of Jung Bahadur this system of government has been clearly laid down and defined. The sovereign, or Maharaj Dhiraj, as he is called, is but a dignified figure-head, whose position can best be likened to that of the Emperor of Japan during the Shogunate. The real ruler of the country is the Minister who, while enjoying complete monopoly of power, couples with his official rank the exalted title of Maharaja. Next to him comes the Commander-in-Chief, who ordinarily succeeds to the office of Minister. The present Minister at the head of affairs of Nepal is Maharaja Sir Chandra Shamshel, G.C.B.

G.C.S.I., G.C.V.O. and Honorary Major-General in the British Army. He has been Prime Minister and Marshal of Nepal since June, 1901.

Rice, wheat and maize form the chief crops in the lowlands. Mineral wealth is supposed to be great, but, like other sources of revenue, has not been developed. Communications in the State are primitive. The revenue is about two crores

of rupees per annum. The standing army is estimated at 45,000, the high posts in it being filled by relations of the Minister. The State is of considerable archaeological interest and many of the sites connected with scenes of Buddha's life have been identified in it by the remains of inscribed pillars.

*Resident:* Lieut.-Col. J. Manners Smith, V. C.

### NORTH-WEST FRONTIER STATES.

The native states of the North-West Frontier Provinces are Amb, Chitral, Dir, Nawaga (Bajaur), and Phulera. The total area is about 7,704 square miles and the population, mainly Mahomedan, is 1,622,094. The average annual revenue of the first four is about Rs. 4,65,000; that of Phulera is unknown.

**Amb.**—Is only a village on the western bank of the Indus in Independent Tanawala.

**Chitral.**—Runs from Dir to the south of the Hindu-Kush range in the north, and has an area of about 4,500 square miles. The ruling dynasty has maintained itself for more than three hundred years, during the greater part of which the State has constantly been at war with its neighbours. It was visited in 1885 by the Lockhart Mission, and in 1889, on the establishment of a political agency in Gilgit, the ruler of Chitral received an annual subsidy from the British Government. That subsidy was increased two years later on condition that the ruler, Amam-ul-Mulk, accepted the advice of the British Government in all matters connected with foreign policy and frontier defence. His sudden death in 1892 was followed by a dispute as to the succession. The eldest son Nizam-ul-Mulk was recognised by Government, but he was murdered in 1895. A religious war was declared against the infidels and the Agent at Gilgit, who had been sent to Chitral to report on the situation, was besieged with his escort and a force had to be despatched (April 1895) to their relief.

The three valleys of which the State consists are extremely fertile and continuously cultivated. The internal administration of the

country is conducted by the Mehtar, and the foreign policy is regulated by the Political Agent.

**Dir.**—The territories of this State, about 5,000 square miles in area, include the country drained by the Panjkora and its affluents down to the junction of the former river with the Bajaur or Rud, and also the country east of this from a point a little above Tirah in Upper Swat down to the Dush Khel Country, following the right bank of the Swat river throughout. The Khan of Dir is the overlord of the country, exacting allegiance from the petty chiefs of the clans. Dir is mainly held by Yusufzai Pathans, the old non-Pathan inhabitants being now confined to the upper portion of the Panjkora Valley known as the Bashkar.

**Bajaur.**—Nawagai is a tract of country included in the territories collectively known as Bajaur which is bounded on the north by the Panjkora river, on the east by the Utman Khel and Mohmand territories and on the west by the watershed of the Kuna river which divides it from Afghanistan. The political system, if it can be termed system, is a communal form of party government, subject to the control of the Khan of Nawagai, who is nominally the hereditary chief of all Bajaur. Under him the country is divided into several minor Khanates, each governed by a chieftain, usually a near relative of the Khan. But virtually the authority of the chieftains is limited to the rights to levy tithe, or *ushar*, when they can enforce its payment, and to exact military service if the tribesmen choose to render it.

*Political Agent for Dir, Swat and Chitral:*  
Major R. L. Kennion.

### NATIVE STATES UNDER LOCAL-GOVERNMENTS.

The Madras Presidency includes 5 Native States covering an area of 10,087 square miles. Of these the States of Travancore and Cochin represent ancient Hindu dynasties. Pudukottai is the inheritance of the chieftain called the Pondiman. Banganapalle and Sandur, two petty States, of which the first is ruled by a Nawab, lie in the centre of two British districts.

Name.	Area sq. miles.	Popula- tion.	Approx. Revenue in lakhs. of rupee.
Travancore ..	7,129	3,428,975	128
Cochin ..	1,861	918,110	47
Pudukottai ..	1,178	411,878	16
Banganapalle ..	255	39,358	2.8
Sandur ..	161	13,517	1.7
			1.2

**Travancore.**—This State occupies the south-west portion of the Indian Peninsula, forming an irregular triangle with its apex at Cape Comorin. The early history of Travancore is in great part traditional; but there is little doubt that H. H. the Maharaja is the representative of the Chera dynasty, one of the three great Hindu dynasties which exercised sovereignty at one time in Southern India. The petty chief, who had subsequently set up as independent rulers within the State, were all subdued, and the whole country, included within its present boundaries, was consolidated and brought under one rule, by the Maharaja Marthanda Varma (1729-58). The English first settled at Anjengo, a few miles to the north of Trivandrum, and built a factory there in 1684. In the wars in which the East India Company were engaged in Madura and Tinnevely, in the middle of the 18th century, the Travancore State gave assistance to the British authorities. Travancore was reckoned as one

of the staunchest allies of the British Power and was accordingly included in the Treaty made in 1784 between the East India Company and the Sultan of Mysore. To protect the State from possible inroads by Tippu, an arrangement was come to in 1788 with the East India Company, and in 1795 a formal treaty was concluded, by which the Company agreed to protect Travancore from all foreign enemies. In 1805 the annual subsidy to be paid by Travancore was fixed at 8 lakhs of rupees.

The present ruler is His Highness Maharaja Sir Balarama Varma, G.C.S.I., G.C.I.E., who was born in 1857 and succeeded in 1895. The government is conducted in his name with the assistance of a Dewan (P. Rajagopala Chari). The work of legislation is entrusted to a Council brought into existence in 1888. An assembly known as the Sri Mulam Popular Assembly meets once a year, when its members are able to bring suggestions before the Dewan. The State supports a military force of 1,474 men. Education has advanced considerably in recent years and the State takes a leading place in that respect. The principal food grain grown is rice, but the main source of agricultural wealth is the coconut. Other crops are pepper, areca-nut, jack-fruit and tapioca. Cotton weaving and the making of matting from the coir are the chief industries. The State is well provided with roads, and with a natural system of back-waters, besides canals and rivers navigable for country crafts. Two lines of railways intersect the country, the Cochin-Shoranore in the north-west and the Tinnevely-Quilon passing through the heart of the State. The capital is Trivandrum.

*Political Agent, A. T. Forbes.*

**Cochin.**—This State on the west coast of India is bounded by the Malabar District of the Madras Presidency and the State of Travancore. Very little is known of its early history. According to tradition, the Rajas of Cochin hold the territory in right of descent from Cherman Perthmal, who governed the whole country of Kerala, including Travancore and Malabar, as Viceroy of the Chola Kings about the beginning of the ninth century, and afterwards established himself as an independent ruler. In 1502, the Portuguese were allowed to settle in what is now British Cochin and in the following year they built a fort and established commercial relations in the State. In the earlier wars with the Zamorin of Calicut, they assisted the Rajas of Cochin. The influence of the Portuguese on the west coast began to decline about the latter part of the seventeenth century, and in 1683 they were ousted from the town of Cochin by the Dutch with whom the Raja entered into friendly relations. About a century later, in 1759, when the Dutch power began to decline, the Raja was attacked by the Zamorin of Calicut, who was expelled with the assistance of the Raja of Travancore. In 1776, the State was conquered by Hyder Ali, to whom it remained tributary and subordinate, and subsequently to his son, Tippu Sultan. A treaty was concluded in 1791 between the Raja and the East India Company, by which His Highness agreed to become tributary to the British Government for his territories which were then in the possession of Tippu, and to pay a subsidy.

The present ruler is His Highness Sir Sri Rama Varma, G.C.S.I., G.C.I.E., Raja of Cochin, who was born in 1852 and succeeded in 1895. The administration is conducted under the control of the Raja whose chief Minister and Executive Officer is the Dewan (A. R. Banerji). The forests of Cochin form one of its most valuable assets. They abound in teak, ebony, blackwood, and other valuable trees. Rice forms the staple of cultivation. Cocoanuts are largely raised in the sandy tracts, and their products form the chief exports of the State. Communications by road and back-waters are good, and the State owns a line from Shoranore to Ernakulam, the capital of the State, and a Forest Steam Tramway used in developing the forests. The State supports a force of 270 men.

*Political Agent, A. T. Forbes.*

**Pudukattai.**—This State is bounded on the north and west by Trichinopoly, on the south by Madura and on the east by Tanjore. In early times a part of the State belonged to the Chola Kings and the southern part to the Pandya Kings of Madura. Relations with the English began during the Carnatic wars. During the siege of Trichinopoly by the French in 1752, the Tondiman of the time did good service to the Company's cause by sending them provisions, although his own country was on at least one occasion ravaged as a consequence of his fidelity to the English. In 1756 he sent some of his troops to assist Muhammad Yusuf, the Company's sepoy commandant, in settling the Madura and Tinnevely countries. Subsequently he was of much service in the wars with Haider Ali. His services were rewarded by a grant of territory subject to the conditions that the district should not be alienated (1806). Apart from that there is no treaty or arrangement with the Raja. The present ruler is Sri Briladamba Sri Marthanda Jihirava Tondiman Bahadur, G.C.I.E., who is eighth in descent from the founder of the family. He succeeded in 1886. The Collector of Trichinopoly is ex-officio Political Agent for Pudukattai. The administration of the State, under the Raja, is entrusted to a State Council of three members, a Superintendent (Mr. J. T. Gwynn, I.C.S.) Dewan, and Councillor. The various departments are constituted on the British India model. The principal food crop is rice. The forests, which cover about one-seventh of the State, contain only small timber. There are no large industries. The State is well provided with roads, but Pudukattai is the only town in the State.

*Political Agent, L. E. Buckley.*

**Banganapalle.**—This is a small State in two detached portions which in the eighteenth century passed from Hyderabad to Mysore and back again to Hyderabad. The control over it was ceded to the Madras Government by the Nizam in 1800, and subsequently passed through a long period of mis-government ending in the removal of the Nawab Fateh Ali Khan in 1905. The present ruler is Nawab Sayid Gulam Ali Khan, a Mahomedan of the Shia Sect, who administers the State with the assistance of the Dewan, Khaja Akbar Hissain. The chief food grains grown are rice, wheat and cholam. Roads have recently been constructed and the capital, Banganapalle, is being gradually opened up with broad thoroughfares. The Nawab

pays no tribute and maintains no military force. *Political Agent, E. S. Lloyd.*

**Sandur.**—This is a small State surrounded by the District of Bellary the Collector of which is the Political Agent. Its early history dates from 1728 when it was first seized by an ancestor of the present Raja, a Maratha named Sidhoji Rao. It subsequently became a vassal to the Peshwa, after whose downfall a formal title for the State was granted by the Madras Government to one Siva Rao. The present ruler is H. H. Raja Srimant Venkata Rao, who was born in 1891. The State is administered by the Raja and the Dewan (T. Kothaudarama Nayudu Garu). The Raja pays no tribute and maintains no military force. The most im-

portant staple crop is cholani. Teak and sandal wood are found in small quantities in the forests.

The minerals of the State possess unusual interest. The hematites found in it are probably the richest ore in India. An outcrop near the southern boundary forms the crest of a ridge 150 feet in height, which apparently consists entirely of pure steel grey crystalline hematite (specular iron) of intense hardness. Some of the softer ores used to be smelted, but the industry has been killed by the cheaper English iron. Manganese deposits have also been found in three places, and in 1911-12 over 83,000 tons of manganese ore were transported by one company.

*Political Agent, A. F. G. Moscardi.*

## UNDER THE GOVERNMENT OF BOMBAY.

More than a half of the total number of the very various units counted as Native States in India are under the Government of Bombay. The characteristic feature of the Bombay States is the great number of petty principalities; the peninsula of Kathiawar alone contains nearly two hundred separate States. The recognition of these innumerable jurisdictions is due to the circumstance that the early Bombay administrators were induced to treat the *de facto* exercise of civil and criminal jurisdiction by a landholder as carrying with it a quasi-sovereign status. As the rule of succession by primogeniture applies only to the larger principalities, the minor states are continually suffering disintegration. In Bombay, as in Central India, there are to be found everywhere the traces of disintegration and disorder left by the eighteenth century. In no part of India is there a greater variety of principalities. The bulk of them are of modern origin, the majority having been founded by Marathas in the general scramble for power in the middle of the eighteenth century, but several Rajput houses date from earlier times. Interesting traces of ancient history are to be found at Sachin, Janjira and Jafarabad, where chiefs of a foreign ancestry, descended from Abyssinian admirals of the Deccan fleets, still remain. A few aboriginal chiefs, Bhils or Kohls, exercise an enfeebled authority in the Dangs and the hilly country that fringes the Mahi and the Nerbada rivers.

The control of the Bombay Government is exercised through Political Agents, whose positions and duties vary greatly. In some of the more important States their functions are confined to the giving of advice and the exercise of a general surveillance; in other cases they are invested with an actual share in the administration; while States whose rulers are minors—and the number of these is always large—are directly managed by Government officers. Some of the States are subordinate to other States, and not in direct relations with the British Government; in these cases the status of the feudatories is usually guaranteed by Government. The powers of the chiefs are regulated by treaty or custom, and range downwards to a mere right to collect revenue in a share of a village, without criminal or civil jurisdiction, as, in the case of the petty chiefs of Kathiawar.

The native States in the Bombay Presidency number 377. Area 65,761 square miles. Pop-

ulation (1911) 7,411,075. They are divided for administrative purposes into the following agencies:—Bijapur Agency, 2 states; Cutch Agency, 1 state; Dharwar Agency, 1 state (Savanur); Kaira Agency, 1 state (Cambay); Kathiawar Agency, 187 states (principal states, Bhavnagar, Dhrangadhra, Gondal, Junagadh, Navanagar); West Khandesh Agency (20 states); Kolaba Agency, 1 state (Janjira); Kolhapur Agency, 9 states (principal state, Kolhapur, with 9 feudatory states); Mahi Kantha Agency, 51 states (principal state, Idar); Nasik Agency, 1 state (Surgana); Palanpur Agency, 17 states (principal state, Palanpur); Poona Agency, 1 state (Bhor); Rewa Kantha Agency, 62 states (principal State, Rajpipla); Satara Agency, 2 states; Savantvadi Agency, 1 state; Sholapur Agency, 1 state; Sukkur Agency, 1 state (Khairpur); Surat Agency, 17 states; Thana Agency, 1 state (Janhar). The table below gives details of the area, etc. of the more important States.

State.	Area in miles sq.	Population.	Approx. Revenue in lakhs of rupees.
Bhavnagar ..	2,860	441,367	47
Cutch ..	7,616	513,420	25
Dhrangadhra ..	1,156	79,142	12
Gondal ..	1,024	161,916	15
Idar ..	1,660	202,811	6
Junagadh ..	3,284	434,222	26
Khairpur ..	6,050	228,768	15
Kolhapur ..	3,165	833,441	57
Navanagar ..	3,791	349,400	22
Palanpur ..	1,750	226,250	5
Rajpipla ..	1,517	161,588	9

**Bijapur Agency.**—This comprises the Satara jaghir of Jath and the small state of Daphilapur (total area 980 square miles), the latter (which has an area of 96 square miles) being an integral part of the State of Jath to which it will lapse on the demise of the widow of the late chief. On the annexation of Satara, in 1849, Jath and Daphilapur, like other Satara Jagirs, became feudatories of the British Government. The latter has more than once interfered to adjust the pecuniary affairs of the Jath Jagir, and in consequence of numerous acts of oppression on the part of the ruler, was compelled to assume direct management from 1874 to 1885. The Chief of Jath, who belongs to the Maratha caste, is styled Deshmukh, and tanks as a firstclass Sardar. He holds a sanad

of adoption, and the succession follows the rule of primogeniture. The small State of Daphlapur is managed by a Rani, aided by her *karbhari*. The revenue of the Agency is about 3½ lakhs chiefly derived from land revenue. The Jath State pays to the British Government Rs. 6,400 per annum in lieu of the services of 50 horsemen and a tribute of Rs. 4,840.

*Political Agent*, Jahangir Kaikhoosru Navroji Kabraji, Collector of Bijapur.

**Cutch.**—The State is bounded on the north and north-west by Sind, on the east by the Palanpur Agency, on the south by the Peninsula of Kathiawar and the Gulf of Cutch and the south-west by the Indian Ocean. Its area, exclusive of the great salt marsh called the Itann of Cutch, is 7,616 square miles. The capital is Bhuj, where the ruling Chief, (the Rao) His Highness Maha Rao Sir Khengarji Bahadur, G.C.I.E., resides. From its isolated position, the special character of its people, their peculiar dialect, and their strong feeling of personal loyalty to their ruler, the peninsula of Cutch has more of the elements of a distinct nationality than any other of the dependencies of Bombay. The earliest historic notices of the State occur in the Greek writers. Its modern history dates from its conquest by the Sind tribe of Samma Rajputs in the fourteenth century. The section of the Sammas forming the ruling family in Cutch were known as the Jadejas or 'children of Jada.' When the rest of the Samma tribe in Lower Sind embraced the orthodox Mahomedan faith, the Jadejas adopted as their religion a mixture of Hinduism and Mahomedanism. This fact has avowedly influenced their history. The British made a treaty with the State in 1815, but three years later the conduct of the ruler made it necessary to occupy the capital and depose him. There is a fair proportion of good arable soil in Cutch, and wheat, barley and cotton are cultivated. Both iron and coal are found but are not worked. Cutch is noted for its beautiful embroidery and silverwork and its manufactures of silk and cotton are of some importance. Trade is chiefly carried by sea. The territory of Cutch has various jurisdictions, only a part being under the direct management of the Rao. A notable fact in connection with the administration of the Cutch State is the number and position of the Bhayads. These are Rajput nobles forming the brotherhood of the Rao. They were granted a share in the territories of the ruling chief as provision for their maintenance and are bound to furnish troops on an emergency. The number of these chiefs is 137, and the total number of the Jadeja tribe in Cutch is about 16,000. The State is by treaty bound to defray the actual expenses of the subsidiary force stationed at Bhuj for the protection of the country to the extent of 2 lakhs annually. The military force consists of about 1,000 in addition to which, there are some irregular infantry, and the Bhayads could furnish on requisition a mixed force of four thousand.

*Political Agent*, Major R. S. Pottinger.

**Dharwar Agency.**—This comprises only the small State of Savanur. The founder of the reigning family who are Mahomedans of Pathan origin was a jagirdar of Emperor Aurangzebe. At the close of the last Maratha War the Nawab of Savanur whose conduct had been exceptionally loyal was confirmed in his possessions

by the British Government. The State pays no tribute. The principal crop is cotton. The area is 70 square miles and population 17,909. The revenue is about one lakh. The present chief is Abdul Majidkhan Dilerjang Bahadur.

*Political Agent*, E. Maconochie.

**Kaira Agency.**—This includes only the State of Cambay at the head of the Gulf of the same name. Cambay was formerly one of the chief ports of India and of the Anhilvada Kingdom. At the end of the thirteenth century it is said to have been one of the richest towns in India; at the beginning of the sixteenth century also it formed one of the chief centres of commerce in Western India. Factories were established there by the English and the Dutch. It was established a distinct State about 1730, the founder of the present family of Chiefs being the last but one of the Mahomedan Governors of Gujarat. The present ruler is His Highness Nawab Jaffar Ali Khan, who is a Mahomedan of the Shah Sect, and was born in 1848 and succeeded in 1880. He pays a tribute of Rs. 21,924 to the British Government. Wheat and cotton are the principal crops. There is a broad gauge line from Cambay to Petlad, connecting with the B. B. & C. I. Railway at Anand. The Nawab exercises full jurisdiction within the State. Revenue is about 5½ lakhs. The area of the State is 350 square miles, population 72,656.

*Political Agent*, A. W. Chukerbutty.

**Kathiawar Agency.**—Kathiawar is the peninsula or western portion of the Province of Gujarat, Bombay. Its extreme length is about 220 miles and its greatest breadth about 165 miles, the area being 23,445 square miles. Of this total about 20,882 square miles with a population of 2,490,057 is the territory forming the Political Agency subordinate to the Government of Bombay, established in 1822, having under its control nearly 200 separate States whose chiefs divided amongst themselves the greater portion of the peninsula. The Kathiawar Agency is divided for administrative purposes into four prants or divisions—Jhalawar, Halar, Sorath, and Gohelwar—and the States have since 1863 been arranged in seven classes. Since 1882 political authority in Kathiawar has been vested in the Political Agent subordinate to the Government of Bombay. In 1903 the designations of the Political Agent and his Assistants were changed to those of Agent to the Governor and Political Agents of the prants. Before 1863, except for the criminal court of the Agent to the Governor, established in 1831, to aid the Darbars of the several States in the trial of heinous crimes, interference with the judicial administration of the territories was diplomatic, not magisterial; and the criminal jurisdiction of the first and second-class chiefs alone was defined. In 1863, however, the country underwent an important change. The jurisdiction of all the chiefs was classified and defined: that of chiefs of the first and second classes was made plenary; that of lesser chiefs was graded in a diminishing scale. The four Political Agents of the prants resident in the four divisions of Kathiawar, now exercise residuary jurisdiction with large civil and criminal powers. Each Political Agent of a prant has a deputy, who resides at the headquarters of the prant or division, and exercises subordinate civil and criminal powers.

Serious criminal cases are committed by the deputies to the court of the Agent to the Governor, to whom also civil and criminal appeals lie. The Agent to the Governor is aided in this work by an officer known as the Political Agent and Judicial Assistant, who is usually a member of the Indian Civil Service. Appeals from his decisions lie direct to the Governor of Bombay in Council in his executive capacity. An officer styled the Superintendent of Managed Estates, who is ex-officio an Assistant Political Agent, and two Deputy-Assistants also help the Agent of the Governor in Kathiawar, J. Sladen.

**Bhavnagar.**—This State lies at the head and west side of the Gulf of Cambay. The Gohel Rajputs, to which tribe the Chief of Bhavnagar belongs, are said to have settled in the country about the year 1260, under Sajakji from whose three sons—Ranoji, Saranji and Shahji—are descended respectively the chiefs of Bhavnagar, Lathi and Pallitana. An intimate connexion was formed between the Bombay Government and Bhavnagar in the eighteenth century when the chief of that State took pains to destroy the pirates which infested the neighbouring seas. The State was split up when Gujarat and Kathiawar were divided between the Peshwa and the Gaekwar; but the various claims over Bhavnagar were consolidated in the hands of the British Government in 1807. The State pays an annual tribute of Rs. 123,060 to the British Government, Rs. 3,581-8-0 as Peshkashi to Baroda, and Rs. 22,858 as Zorlati to Junagadh. H. H. Maharaja Rao Shri Bhavsinhji, K.C.S.I., is the supreme and final authority in the State. The general administration is conducted under His Highness's directions by the Dewan (Tribhuvandas K. Trivedi, Acting Dewan), who is assisted by the Naib Dewan, the Judicial Assistant and the Personal Assistant. One noteworthy feature in the administration is the complete separation of judicial from executive functions and the decentralisation of authority is another. The authority and powers of all the Heads of Departments have been clearly defined, and each within his own sphere is independent of the others, being directly responsible to the Dewan.

The chief products of the State are grain, cotton and salt. The chief manufactures are oil, copper and brass vessels and cloth. The Bhavnagar State Railway is 20½ miles in length, and the management of it undertakes also the working of the Dhrangadhra State Railway for a length of 21 miles. The capital of the State is the town and port of Bhavnagar, which has a good and safe harbour for shipping and carries on an extensive trade as one of the principal markets and harbours of export for cotton in Kathiawar. Bhavnagar supports 300 Imperial Service Lancers and 282 Infantry or Armed Police.

**Dhrangadhra State** is an uneven tract of land (intersected by small streams) which consists of hilly and rocky ground where stone is quarried. The chief of Dhrangadhra belongs to the Jhala tribe, originally a sub-division of the Makvana family. This tribe is of great antiquity, and is said to have entered Kathiawar from the north, establishing itself first at Patli in the Ahmedabad District, thence moving to Halvad and finally settling in its present seat. The greater part of this territory was probably annexed at one time by the

Mahomedan rulers of Gujarat. Subsequently, during the reign of the Emperor Aurangzeb (1658-1707), the sub-division of Halvad, then called Muhammadnagar, was restored to the Jhala family. The petty States of Limbdi, Wadhwan, Chuda, Sayla, and Than-Lakhtar in Kathiawar are offshoots from Dhrangadhra; and the house of Wankaner claims to be descended from an elder branch of the same race. His Highness the Maharana Shri Ghanshyamsinhji is the ruling chief, who is the head of the Jhala Rajput family. The State pays a tribute of Rs. 40,671 to the British Government, and Rs. 4,006 to Junagadh State. The administration is conducted under the Maharaja's directions by the Dewan (Mansinh S. Jhala). The principal crops are cotton and grain. Considerable trade is done in stone, the right of exporting which has been leased for five years for Rs. 10,501 per annum. The Capital town is Dhrangadhra, a fortified town, 75 miles west of Ahmedabad.

**Gondal State.**—The Chief of Gondal is a Rajput of the Jadeja stock with the title of Thakur Sahib, the present Chief being Sri Bhagvat Sinhji, G.C.I.E. The State pays a tribute of Rs. 1,10,721. The chief products are cotton and grain and the chief manufactures are cotton and woollen fabrics and gold embroidery. Gondal has always been pre-eminent amongst the States of its class for the vigour with which public works have been prosecuted, and was one of the earliest pioneers of railway enterprise in Kathiawar, having initiated the Dhasa-Dhoraji line; it subsequently built other lines in partnership with other Native States in Kathiawar. The Capital is Gondal, a fortified town on the line between Rajkot and Jetalsar.

**Junagadh State.**—This State has an area of 3,284 square miles and is bounded on the north by the Barda and Halar and on the west and south by the Arabian Sea. The river Saraswati, famous in the sacred annals of the Hindus, passes through the State. A densely wooded tract called the Gir, is contained in the State and is well known as the last haunt in India of the lion. Until 1472, when it was conquered by Sultan Mahmud Bagra of Ahmedabad, Junagadh was a Rajput State, ruled by Chiefs of the Chudasama tribe. During the reign of the Emperor Akbar it became a dependency of Delhi under the immediate authority of the Mughal Viceroy of Gujarat about 1735, when the representative of the Mughals had lost his authority in Gujarat. Sher Khan Babi, a soldier of fortune, expelled the Mughal Governor, and established his own rule. The ruler of Junagadh first entered into engagements with the British Government in 1807. The Chief bears the title of Nawab, the present Nawab being tenth in succession from the founder of the family. He is His Highness Mohabat Khan, who was born in 1900 and succeeded in 1911. The agricultural products are cotton, shipped in considerable quantities from Veraval to Bombay, wheat and other grains. The coast line is well supplied with fair weather harbours. The State pays a tribute of Rs. 85,604 to the Gaekwar of Baroda and the British Government, but the Nawab receives contributions, called zorlati, amounting to Rs. 92,421 from a number of chiefs in Kathiawar—a relic of the days of



**Mahomedan supremacy.** The State maintains 99 Imperial Service Lancers. The Capital is Junagadh, situated under the Girnar and Datar hills, which is one of the most picturesque towns in India, while in antiquity and historical interest it yields to none. The Uparkot, or old citadel, contains interesting Buddhist caves, and the whole of the ditch and neighbourhood is honeycombed with caves or their remains. There are a number of fine modern buildings in the town.

*Administrator*, H. D. Rendall.

**Navanagar State**, on the southern shore of the Gulf of Cutch, has an area of 3,791 square miles. The Jam of Navanagar is a Jadeja Rajput by caste, and belongs to the same family as the Rao of Cutch. The Jadejas originally entered Kathiawar from Cutch, and dispossessed the ancient family of Jethwas (probably a branch of Jats) then established at Ghumli. The town of Navanagar was founded in 1540. The present Jam Sahib is the well-known cricketer, H. H. Jam Sahib Shri Ranjitsinhji Vibhaji, who was born in 1872 and succeeded in 1907. The principal products are grain and cotton, shipped from the ports of the State. A small pearl fishery lies off the coast. The State pays a tribute of Rs. 1,20,093 per annum jointly to the British Government, the Gackwar of Baroda and the Nawab of Junagadh. The State maintains a squadron of Imperial Service Lancers. The Capital is Navanagar (or Jamnagar) a flourishing place, nearly 4 miles in circuit, situated 5 miles east of the port of Bedi.

**Kolaba Agency.**—This Agency includes the State of Janjira in the Konkan, a country covered with spurs and hill ranges and much intersected by creeks and backwaters. The ruling family is said to be descended from an Abyssinian in the service of one of the Nizam Shahi Kings of Ahmednagar at the end of the fifteenth century. The most noticeable point in its history is the successful resistance that it alone, of all the states of Western India, made against the determined attacks of the Marathas. The British on succeeding the Marathas as masters of the Konkan refrained from interfering in the internal administration of the State. The chief is a Sunni Mahomedan, by race a Sidi or Abyssinian, with a title of Nawab. He has a sanad guaranteeing succession according to Mahomedan law and pays no tribute. Till 1868 the State enjoyed singular independence, there being no Political Agent, and no interference whatever in its

internal affairs. About that year the mal-administration of the chief, especially in matters of police and criminal justice, became flagrant; those branches of administration were in consequence taken out of his hands and vested in a Political Agent. The present ruler is H. M. Nawab Sidi Sir Ahmed Khan, G.C.I.E. The area of the State is 377 square miles, and the population 101,090. The average revenue is 6 lakhs. The State maintains a military force of 235. The capital is Janjira, 44 miles south of Bombay Island.

**Kolhapur Agency.**—Kolhapur is a State with an area of 3,217 square miles and population of 833,441. Subordinate to Kolhapur are nine feudatories, of which the following five are important: Vishalgarh, Bavda, Kagal (senior), Kapsi and Ichalkaranji. The present ruling chief Sir Shahu Chhatrapati Maharaja, G.C.S.I., G.C.I.E., G.C.V.O., traces his descent from a younger son of Shivaji, founder of the Maratha power. The prevalence of piracy from the Kolhapur port of Malvan compelled the Bombay Government to send expeditions against Kolhapur in 1765, and again in 1792, when the Raja agreed to give compensation for the losses which British merchants had sustained since 1785, and to permit the establishment of factories at Malvan and Kolhapur. Internal dissensions and wars with neighbouring States gradually weakened the power of Kolhapur. In 1812 a treaty was concluded with the British Government, by which, in return for the cession of certain ports, the Kolhapur chief was guaranteed against the attacks of foreign powers; while on his part he engaged to abstain from hostilities with other States, and to refer all disputes to the arbitration of the British Government. The principal articles of production are rice, jawar and sugar-cane and the manufactures are coarse cotton and woollen cloths, pottery and hardware. The State pays no tribute, and supports a military force of 690. The nine feudatory estates are administered by their holders. Kolhapur proper is divided into six pethas or talukas and four mahals and is managed by the Maharaja, who has full powers of life and death. The Southern Mahratta Railway passes through the State and is connected with Kolhapur City by a line which is the property of the State.

Resident and Senior Political Agent for the Southern Mahratta country and Kolhapur: Lt.-Col. F. W. Wodehouse, G.I.E.

**Southern Maratha Country States.**—The Agency consists of the following eight States:—

Name of State.	Area in square miles.	Population.	Tribute in British Government.	Average revenue.
			Rs.	Rs.
Sangli .. .. .	1,112	227,146	1,35,000	10,75,756
Miraj (Senior) .. .. .	339	80,281	12,557	3,12,980
Miraj (Junior) .. .. .	210	36,490	7,388	2,55,263
Kurundwad (Senior) .. .. .	185	38,375	...	1,54,360
Kurundwad (Junior) .. .. .	114	34,084	9,618	1,73,660
Jamkhandi .. .. .	524	100,304	20,515	9,41,105
Jamkhol .. .. .	368	62,831	2,671	3,52,916
Ramdrug .. .. .	169	36,610	...	1,50,729
<b>Total ..</b>	<b>8,021</b>	<b>616,121</b>	<b>•1,87,749</b>	<b>•34,16,787</b>

**Mahi Kantha.**—This group of States has a total area of 3,124 square miles and a population of 412,631. The revenue is about 14 lakhs. The Agency consists of the first class State of Idar and 62 small States. The Native State of Idar covers more than half the territory; eleven other States are of some importance; and the remainder are estates belonging to Rajput or Koli Thakurs, once the lawless feudatories of Baroda, and still requiring the anxious supervision of the Political Officer. H. H. Major General Sir Partab Singh, a Rajput of the Rathor Clan, having been appointed regent of the State of Jodhpur, resigned the gadi of Idar in June 1911 and was succeeded by his adopted son Daulatsinhji. Many relatives of the Maharaja, and feudal chiefs whose ancestors helped to secure the country for the present dynasty, now enjoy large estates on service tenures, and there are numerous petty chiefs or *thumias* who have held considerable estates from the time of the Raos of Idar, or earlier, and are under no obligation of service. The revenues of the State are shared by the Maharaja with these feudal chiefs. The Maharaja receives about Rs. 8,600 annually from several chiefs in Mahi Kantha, and pays its 30,340 as tribute to the Gaekwar of Baroda through the British Government. Many chiefs subordinate to Idar, known locally as pattawals, hold their estates on condition of military service, the quota being three horsemen for every 1,000 Rupees of Revenue; but for many years this service has not been exacted and no military force is maintained at present.

*Political Agent:* Major N. S. Coghill.

**Nasik Agency.**—This consists of one State, Surgana, lying in the north-west corner of the Nasik District. Surgana has an area of 360 square miles and a population of 15,180. The ruling chief is Prataprav Shaunkarrao Deshmukhi, who is descended from a Koli family. He rules the State with the help of a Dewan subject to the orders of the Collector of Nasik. The revenue of the State is about Rs. 23,000.

**Palanpur Agency.**—This group of States in Gujarat comprises two first class States, Palanpur and Radhanpur, and a few minor States and petty talukas. Its total area is 6,393 square miles and the population is 515,092. The gross revenue is about 14½ lakhs. The territory included in the Agency has, like the more central parts of Gujarat, passed during historical times under the sway of the different Rajput dynasties of Anhilvada, the early Khilji and Tughlak Shahi dynasties of Delhi, the Ahmedabad Sultans, the Mughal Emperors, the Mahrattas, and lastly the British. The State from which the Agency takes its name is under the rule of H. H. Nawab Sher Muhammad Khan, G.C.I.E., who is entitled the Dewan of Palanpur. He is descended from the Lohanis, an Afghan tribe who appeared in Gujarat in the fourteenth century. The connection of the British Government with the State dates from 1819 in which year the chief was murdered by a body of nobles. Two high roads from Ahmedabad pass through the State and a considerable trade in cotton cloth, grain, sugar and rice is carried on. The State maintains a military force of 600 and pays tribute of Rs. 38,000 to the Gaekwar of Baroda.

The capital is Palanpur, situated at the junction of the Palanpur-Deesa Branch of the B. B. & C. I. Railway. It is a very old settlement of which mention was made in the eighth century.

*Political Agent:* Lt.-Col. J. W. B. Merewether.

**Radhanpur** is a State, with an area of 1,150 square miles, which is now held by a branch of the Babi family, who since the reign of Humayun have always been prominent in the annals of Gujarat. The present chief is H. H. Jalal-ud-din Khanji, the Nawab of Radhanpur. He has powers to try his own subjects even for capital offences without permission from the Political Agent. The State maintains a military force of 200. The principal products are cotton, wheat and grain. The capital is Radhanpur town, a considerable trade centre for Northern Gujarat and Cutch.

**Rewa Kantha Agency.**—This Agency, with an area of 4,956 square miles and a population of 665,099, comprises 61 States, of which Rajpipla is a first class State, 5 are second class, one is third class and the rest are either petty States or talukas. Among those petty states are Kadana and Sanjeli in the north, Bhadarva and Umcta in the west, Narukot in the south-east, and three groups of Mehwas. The 26 Sankheda Mehwas petty estates lie on the right bank of the Narbada, while the 24 Pandu Mehwas petty estates including Dorka, Anghad and Raika, which together form the Dorka Mehwas are situated on the border of the Mahi.

The following are the statistics of area and population for the principal states:—

Taluka or Petha.	Area in square miles.	Population.
Balasinoor .. .. .	189	40,563
Bariya .. .. .	813	115,350
Chhota Udaipur .. .. .	873	103,639
Lunavada .. .. .	388	75,998
Narukot (Jambhughoda) .. .. .	143	8,485
Rajpipla .. .. .	1,517	161,588
Sunth .. .. .	394	59,350
Other Jurisdictional States Civil Stations and Thana Circles .. .. .	639	100,126

Under the first Anhilvada dynasty (746-961), almost all the Rewa Kantha lands except Champaner were under the government of the Baryas, that is, Koli and Bhil chiefs. In the eleventh, twelfth and thirteen centuries chiefs of Rajput or part Rajput blood, driven south and east by the pressure of Muhammadan invasions, took the place of the Koli and Bhil leaders. The first of the present States to be established was the house of the Raja of Rajpipla.

*Political Agent:* C. W. M. Hudson.

**Rajpipla.**—This State lies to the south of the Narbada. It has an area of 1,517 square

miles, and largely consists of the Rajpipla Hills which form the watershed between the Nerbada and Tapi rivers. The family of the Raja of Rajpipla, H. H. Maharana Shri Sir Chhatrasinhji Ghambhirsinhji, K.C.I.E., is said to derive its origin from a Rajput of the Paramara clan. The State pays an annual tribute of Rs. 50,000 to the Gaekwar of Baroda. Cotton is the most important crop in the State. In the south there are valuable teak forests. The capital is Nanded, which is connected with Anklesvar by railway built by the State.

These were formerly feudatory to the Raja of Satara. In 1849 five of them were placed under the Collector of Satara, and Akalkot under the Collector of Sholapur. Subsequently, the Jagir of Bhore was transferred to the Collector of Poona and Jath and Daphlapur to the Southern Mahratta country. The last two are now under the Collector of Bijapur. The ruling chiefs are as follows:—

**Satara Jagirs.**—Under this heading are grouped the following six States:—

State.	Area in sq. miles.	Population.	Revenue in lakhs.
Aundh ..	601	68,995	3
Phaltan ..	397	55,996	2
Bhor ..	925	144,601	5
Akalkot ..	498	89,082	4
Jath ..	884	69,810	2
Daphlapur ..	96	8,833	20

State.	Ruling Chiefs.	Tribute to British Government.
Aundh ..	Bhavanrav Shrinivasrao <i>alias</i> Baba Saheb, Pant Pratindhi.	....
Phaltan ..	Mudhojirav Janrav Nimbalkar .. .. .	9,600
Bhor ..	H. H. Shankarrav Chimnaji, Pant Sachiv .. .. .	4,684
Akalkot ..	Fatehsinh Shahai Rajee Bhonsle <i>alias</i> Babu Saheb .. .. .	14,582
Jath ..	Ramrav Amritrav <i>alias</i> Aba Saheb Daphle .. .. .	6,400
Daphlapur ..	Rani Bai Saheb Daphle, widow of Ramchandravar Venkatrav Chavan Daphle.	....

**Savantwadi.**—This State has an area of 926 square miles and population of 217,240. The average revenue is  $4\frac{1}{2}$  lakhs. It lies to the north of the Portuguese territory of Goa, the general aspect of the country being extremely picturesque. Early inscriptions take the history of the State back to the sixth century. So late as the nineteenth century the ports on this coast swarmed with pirates and the country was very much disturbed. The present chief is Shriram Savant Bhonsle. Rice is the principal crop of the State, and it is rich in valuable teak. The sturdy Marathas of the State are favourite troops for the Indian Army and supply much of the immigrant labour in the adjacent British districts. The Capital is Vadi.

**Sholapur Agency.**—This contains the State of Akalkot which forms part of the tableland of the Deccan. It has an area of 498 square miles and a population of 89,082. In the beginning of the eighteenth century the Akalkot territory, which had formerly been part of the Mussulman kingdom of Ahmednagar was granted by the Raja of Satara to a Maratha Sardar, the ancestor of the present chief, subject to the supply of a contingent of horse. In 1849 after the annexation of Satara, the Akalkot Chief became a feudatory of the British Government.

**The Sukkur Agency.**—This includes Khairpur State, a great alluvial plain in Sind. It has an area of 6,050 square miles and a population of 223,788, and revenue of 15 lakhs. The present chief, H. H. Mir Sir Imam Buksh Khan

Talpur, G.C.I.E., belongs to a Baloch family called Talpur. Previous to the accession of this family on the fall of the Kalhora dynasty of Sind in 1783, the history of Khairpur belongs to the general history of Sind. In that year Mir Fateh Ali Khan Talpur established himself as Rais or ruler of Sind; and subsequently his nephew, Mir Sohrab Khan Talpur, founded the Khairpur branch of the Talpur family. In 1832 the individuality of the Khairpur State, as separate from the other Talpur Mirs in Sind, was recognised by the British Government in a treaty, under which the use of the river Indus and the roads of Sind were secured to the British. The chief products of the State are fuller's earth, carbonate of soda, cotton, wool and grain. The manufactures comprise cotton fabrics and various kinds of silverware and metal work. The Railway from Hyderabad to Rohri runs through the whole length of the State. The rule of the Mir is patriarchal, but many changes have been made in recent years introducing greater regularity of procedure into the administration. The Wazir, an officer lent from British service, conducts the administration under the Mir. The State supports a military force of 425, including an Imperial Service Camel Corps which is about 100 strong.

*Political Agent:* the Collector of Sukkur, G. E. Chatfield.

**Surat Agency.**—This is a small group of three second class States under the superintendence of the Collector of Surat, F. G. H. Anderson.

State.	Ruling Chiefs.	Area in sq. miles.	Population.
Dharampur ..	Maharana Shri Mohandevji Narayandevji .. .. .	704	114,995
Bandas ..	Maharawal Shri Indrasinhji Pratapsinhji .. .. .	215	44,594
Sachin ..	Nawab Sidi Ibrahim Muhammad Yakut Khan Mubzarat Daula Nasrat Jung Bahadur.	42	10,903

The joint revenue of these States is 121 lakhs. Tribute is paid to the British Government of Rs. 9,154. There is also attached to this Agency a tract of country known as the Dangs, which has an area of 999 square miles and a population of 29,353 and a revenue of Rs. 30,000. The country is divided into 14 Dangs or States of very unequal area, each under the purely nominal rule of a Bhil Chief with the title of Raja, Naik, Pradhan or Powar.

**Thana Agency.**—This includes the State of Jawhar, in the Thang District, on a plateau above the Konkan plain. It has an area of 310 square miles and a population of 53,489

and revenue of 2 lakhs. Up to 1291, the period of the first Mahomedan invasion of the Deccan, Jawhar was held by a Varil, not a Koli chief. The first Koli chief, obtained his footing in Jawhar by a device similar to that of Dido, when she asked for and received as much land as the hide of a bull would cover. The Koli chief cut a hide into stripes, and thus enclosed the territory of the State. The present chief is Raja Krishnashah Patangshah who administers the State, assisted by a Karbhari under the supervision of the Collector of Thana, J. A. G. Wales.

## UNDER THE GOVERNMENT OF BENGAL.

**Cooch Behar.**—This State is a low-lying plain in North Bengal. It has an area of 1,307 square miles, a population of 5,93,052 and revenue of 27 lakhs. The ruling chief is I. H. Maharaja Raja Rajendra Narayan Bhup Bahadur, who succeeded in 1911. His family is of Tibetan or Dravidian origin. He administers the State with the assistance of the State Council and the Superintendent (A. W. Dentith), who is an officer lent by the British Government. Cooch Behar once formed part of the famous kingdom of Kamarupa. British connexion with it began in 1772 when the succession was disputed and the assistance of the East India Company invited. The chief products of the State are rice, jute and tobacco. It maintains a military force of 194. The capital is Cooch Behar, which is reached by the Cooch Behar State Railway, a branch from the Eastern Bengal State Railway System.

**Hill Tippera.**—This State lies to the south of the district of Sylhet and consists largely of hills covered with bamboo jungles. It has an area of 4,086 square miles and a population of 229,613. The revenue from the State is about 9 lakhs and from the Zemindari in British territory a slightly larger sum. The present Raja is Birendra Kishore Deb Barman Manikya, who is a Kshatriya by caste and comes of an Indo-Chinese family. The military prestige of the Tippera Rajas dates back

to the fifteenth century and a mythical account of the State takes the history to an even earlier date. Both as regards its constitution and its relations with the British Government, the State differs alike from the large Native States of India, and from those which are classed as tributary. Besides being the ruler of Hill Tippera, the Raja also holds a large landed property called Chakia Roshnabad, situated in the plains of the Districts of Tippera, Nakhali and Sylhet. This estate covers an area of 570 square miles, and is the most valuable portion of the Raja's possessions; it yields a larger revenue than the whole of Hill Tippera, and it is held to form with the State an indivisible Raj. Disputes as to the right of succession have occurred on the occasion of almost every vacancy in the Raj, producing in times gone by disturbances and domestic wars, and exposing the inhabitants of the hills to serious disorders and attacks from the Kukis, who were always called in as auxiliaries by one or other of the contending parties. The principles which govern succession to the State have recently, however, been embodied in a sanad which was drawn up in 1904. The chief products of the State are rice and cotton, the traffic being carried chiefly by water. The administration is conducted by the Minister at Agartala assisted by the Dewan.

*Political Agent:* Captain R. C. B. Williams.

## UNDER THE GOVERNMENT OF BEHAR AND ORISSA.

Under this Government, there are the Chota Nagpur political states of Kharsawan and Sarakela, and the Orissa feudatory states, 24 in number. The total area is 28,648 square miles, and the total population 3,937,692. The revenue is about 46 lakhs. The inhabitants are hill-men of Kolarian or Dravidian origin, and their condition is still very primitive. The chief of Kharsawan belongs to a junior branch of the Porahat Raja's family. The State first came under the notice of the British in 1793, when, in consequences of disturbances on the frontier of the old Jungle Mahals, the Thakur of Kharsawan and the Kunwar of Sarakela were compelled to enter into certain agreements relating to the treatment of fugitive rebels. The chief is bound, when called upon, to render service to the British Government, but he has never had to pay tribute. His present sanad was granted in 1899. He exercises all administrative powers, executive and judicial, subject to the control of the Deputy Commissioner of Singhbhum and the Commissioner

of Chota Nagpur. The Bengal Nagpur Railway runs through a part of the State. The adjoining State of Sarakela is held by the elder branch of the Porahat Raja's family.

**Orissa Feudatory States.**—This group of 22 dependent territories is situated between the Mahanadi Delta and the Central Provinces, and forms the mountainous background of Orissa. The names of the individual states are Athgarh, Alacher, Mayurbhanj, Nilgiri, Keonjhar, Pal Lahara, Dhenkanal, Athmalik, Hindol, Narsinghpur, Baramba, Tigiria, Khanpara, Nayagarh, Ranpur, Daspalla and Baid. To these there were added in 1905 the following States: Bamra, Rairakhol, Sonpur, Patana and Kalahandi from the Central Provinces, and Gangpur and Bonal from the Chota Nagpur States. The total population in 1911 was 3,796,563 with a revenue of about 45 lakhs. The Tributary States have no connected or authentic history. Comprising the western and hilly portion of the province of Orissa; they were never brought under the

central government, but from the earliest times consisted of numerous petty principalities which were more or less independent of one another. They were first inhabited by aboriginal races, who were divided into innumerable communal or tribal groups each under its own chief or headman. These carried on incessant warfare with their neighbours on the one hand and with the wild beasts of the forests on the other. In course of time their hill retreats were penetrated by Aryan adventurers, who gradually overthrew the tribal chiefs and established themselves in their place. Tradition relates how these daring interlopers, most of whom were Rajputs from the north, came to Puri on a pilgrimage and remained behind to found kingdoms and dynasties. It was thus that Jai Singh became ruler of Mayurbhanj over 1300 years ago, and was succeeded by his eldest son, while his second son seized Kconjhar. The chiefs of Baud and Daspatha are said to be descended from the same stock; and a Rajput origin is also claimed by the Rajas of Athmalik, Narsinghpur, Pal Lahara, Talcher and Tiziria. Naya-garh, it is alleged, was founded by a Rajput from Rewah, and a scion of the same family was the ancestor of the present house of Khandpara. On the other hand, the chiefs of a few States, such as Athgarh, Baramba and Dhenkanal, owe their origin to favourites or distinguished servants of the ruling sovereigns of Orissa. The State of Rampur is believed to be the most ancient, the list of its chiefs covering a period of over 3,600 years. It is noteworthy that this family is admittedly of Khond

origin, and furnishes the only known instance in which, amid many vicissitudes, the supremacy of the original settlers has remained intact. The States acknowledged the suzerainty of the paramount power and were under an implied obligation to render assistance in resisting invaders; but in other respects neither the ancient kings of Orissa nor their successors, the Mughals and Marathas, ever interfered with their internal administration. All the states have annals of the dynasties that have ruled over them; but they are made up in most part of legend and fiction and long genealogical tables of doubtful accuracy, and contain very few features of general interest. The British conquest of Orissa from the Marathas, which took place in 1803, was immediately followed by the submission of ten of the Tributary States the chiefs of which were the first to enter into treaty engagements.

The staple crop in these States is rice. The forests in them were at one time among the best timber producing tracts in India, but until lately forest conservancy was practically unknown. The States have formed the subject of frequent legislation of a special character. The relations with the British Government are governed mainly by the sanads granted in similar terms to all the chiefs in 1894. They contain ten clauses reciting the rights, privileges, duties and obligations of the chiefs, providing for the settlement of boundary disputes, and indicating the nature and extent of the control of the Political Agent who is also the Commissioner of the Orissa Division.

### UNDER THE GOVERNMENT OF THE UNITED PROVINCES.

Three States: Rampur, Tehri and Benares are included under this Government:—

State.	Area Sq. Miles.	Popu- lation.	Revenue in lakhs.
Rampur ..	892	531,898	45
Tehri (Garhwal) ..	4,200	299,853	6
Benares ..	988	....	....

**Rampur** in Rohilkhand is a level fertile tract of country. Its early history is that of Rohilkhand. The adopted son of a Rohilla, who had distinguished himself in the Maratha wars, obtained the title of Nawab and the grant of the greater part of Rohilkhand in 1790. Subsequently the State was divided amongst his sons and on the cession of Rohilkhand to the British Government in 1801 the family holding Rampur were confirmed in their possessions. The Nawab at the time of the Mutiny received a grant of land for his unserving loyalty. The present Nawab is Colonel H. H. Sir Hamid Ali Khan Bahadur, G.C.I.E., G.C.V.O., A.D.C., who was born in 1875 and succeeded in 1889. Since that date a native official of the United Provinces, called the Minister, has been lent to the State. He presides over a Legislative Committee first formed in 1902. The principal crops are maize, wheat, rice and sugar cane. The most important industry is the weaving of cotton cloths. The Oudh and Rohilkhand Railway crosses the State. Three

squadrons of cavalry are maintained, of which two, 317 strong, are Imperial Service Lancers. The local force includes about 1,900 infantry and 200 artillery. The capital is Rampur on the left bank of the Kosi, 851 miles by rail from Calcutta. Income, 45 lakhs.

*Political Agent:* the Commissioner of the Bareilly Division.

**Tehri State.**—(or Tehri Garhwal). This State lies entirely in the Himalayas and contains a tangled series of ridges and spurs radiating from a lofty series of peaks on the border of Tibet. The sources of the Ganges and the Jumna are in it. The early history of the State is that of Garhwal District, the two tracts having formerly been ruled by the same dynasty. Parduman Shah, the last Raja of the whole territory, was killed in battle, fighting against the Gurkhas; but at the close of the Nepalese War in 1815, his son received from the British the present State of Tehri. During the Mutiny the latter rendered valuable assistance to Government. He died in 1869 without issue, and was succeeded by his near relative Bhawani Shah; and he subsequently received a sanad giving him the right of adoption. The present Raja Sir Kirti Shah, K.C.S.I., was installed in 1894. The principal product is rice, grown on terraces on the hill-sides. The State forests are very valuable and there is considerable export of timber. The Raja has full powers within the State, executive authority being vested in an officer called the Wazir. A military force of 113 strong is maintained.

The capital is Tehri, the summer capital being Pratapnagar 8,000 feet above the sea level.

**Political Agent,** the Commissioner of Kumaon. **Benares.**—The founder of the ruling family of Benares was one Mansa Ram, who entered the service of the Governor of Benares under the Nawab of Oudh in the early eighteenth century. In 1794, owing to the maladministration of the estates which had accumulated under the Raja of Benares, an agreement was concluded by which the lands held by the Raja in his own right were separated from the rest of the province, of which he was simply administrator. The direct control of the latter was assumed by the Government, and an annual income of one lakh of rupees was assured to the Raja, while the former constituted the Domains. Within the Domains the Raja had revenue powers similar to those of a Collector in a British District, which were delegated to

certain of his own officials. There was thus constituted what for over a century was known as the Family Domains of the Maharaja of Benares. On the 1st of April 1911 these Domains became a State consisting of the parganas of Bhadohi (or Konrh) and Chakia (or Kera Mangraur) with the fort of Ramnagar. The Maharaja's powers are those of a ruling chief, subject to certain conditions, of which the most important are the maintenance of all rights acquired under laws in force prior to the transfer, the reservation to Government of the control of the postal and telegraph systems, of plenary criminal jurisdiction within the State over servants of the British Government and European British subjects, and of a right of control in certain matters connected with excise. The present ruler is H. H. Maharaja Sir Prabhu Narayan Singh Bahadur, G.C.I.E., who was born in 1855 and succeeded to the Estates in 1889.

### UNDER THE GOVERNMENT OF THE PUNJAB.

Under this Government there are 34 states, varying considerably in size and importance. Area, 36,532 square miles. Population (1911), 4,212,794. Revenue, about £1,000,000.

The Punjab states may be grouped under three main classes. The hill States, 23 in number, lie among the Punjab Himalayas and are held by some of the most ancient Rajput families in all India. Along the western half of the southern border lies the Muhammadan state of Bahawalpur. The remaining States, including the Sikh principalities of Patiala, Jind, Nabha, Kapurthala, Faridkot and Kalsia, and the Muhammadan chiefships of Maler Kotla, Pataudi, Loharu and Dujana, lie east of Lahore, and, with insignificant exceptions, occupy the centre of the eastern plains of the province.

The list below gives details of the area, population, and revenue of the more important states:—

Name.	Area square miles.	Population.	Revenue Approx. in lakhs.
Bahawalpur ..	15,000	780,394	27
Chamba ..	3,216	134,351	7
Faridkot ..	642	130,374	8
Jind ..	1,259	271,728	15
Kapurthala ..	630	208,244	25
Maler Kotla ..	107	71,144	4
Mandi ..	1,200	181,110	5
Nabha ..	928	248,892	15
Patiala ..	5,412	1,407,069	72
Sirmur (Nahan) ..	1,194	138,564	8

**Bahawalpur.**—This State, which is about 300 miles in length and about 40 miles wide, is divided lengthwise into three great strips. Of these, the first is a part of the Great Indian Desert; the central tract is chiefly desert, not capable of cultivation, identical with the Bar or Pat uplands of the Western Punjab; and the third, a fertile alluvial tract in the river valley, is called the Sind. The ruling family claims descent from the Abbasid Khalifs of Egypt. The tribe originally came from Sind,

and assumed independence during the dismemberment of the Durrani empire. On the rise of Ranjit Singh, the Nawab made several applications to the British Government for an engagement of protection. These, however, were declined, although the Treaty of Lahore in 1809, whereby Ranjit Singh was confined to the right bank of the Sutlej, in reality effected his object. The first treaty with Bahawalpur was negotiated in 1833, the year after the treaty with Ranjit Singh for regulating traffic on the Indus. It secured the independence of the Nawab within his own territories, and opened up the traffic on the Indus and Sutlej. During the first Afghan War the Nawab rendered assistance to the British and was rewarded by a grant of territory and life pension. On his death the succession was disputed and for a time the State was in the hands of the British. The present Nawab is H. H. Nawab Sadiq Muhammad Khan, who was born in 1904 and succeeded in 1907. During his minority the State is managed by a Council of Regency. The chief crops are wheat, rice and millet. The Lahore-Karachi branch of the North-Western State Railway passes through the State. The State supports an Imperial Service Silladar Camel Transport Corps consisting of 355 men and 1,144 camels, in addition to other troops. The capital is Bahawalpur, a walled town built in 1748.

**Political Agent:** C. H. Atkins.

**Chamba.**—This State is enclosed on the west and north by Kashmir, on the east and south by the British districts of Kangra and Gurdaspur, and it is shut in on almost every side by lofty hill ranges. The whole country is mountainous and is a favourite resort of sportsmen. It possesses a remarkable series of copper plate inscriptions from which its chronicles have been completed.

Founded probably in the sixth century by Marut, a Surajbansi Rajput, who built Brahmapura, the modern Brahmapur, Chamba was extended by Meru Varma (680) and the town of Chamba built by Sahil Varma about 920. The State maintained its independence, acknowledging at times a nominal submission to Kashmir, until the Moghal conquest of India.

Under the Moghals it became tributary to the empire, but its internal administration was not interfered with, and it escaped almost unscathed from Sikh aggression. The State first came under British influence in 1846. The part, west of the Ravi, was at first handed over to Kashmir, but subsequently the boundaries of the State were fixed as they now stand, and it was declared independent of Kashmir. The present chief is H. H. Raja Sir Bhure Singh, K.C.S.I., C.I.E., who was born in 1869 and succeeded in 1904. The principal crops are rice, maize and millets. There are some valuable forests partly leased to Government in 1864 for a term of 99 years. The mountain ranges are rich in minerals which are little worked. The principal road to Chamba town is from Pathankot, the terminus of the Amritsar Pathankot branch of the North-Western Railway. The Raja is assisted in the administration by the Wazir, who is the chief executive officer and head of the judicial department. Chamba town, on the right bank of the Ravi, contains a number of interesting temples, of which that of Lakshmi Narayan, dating possibly from the tenth century, is the most famous.

**Faridkot.**—The ruling family of this sandy level tract of land belongs to the Sidhu-Barar clan of the Jats, and is descended from the same stock as the Phulkian houses. Their occupation of Faridkot and Kot Kapura dates from the time of Akbar, though quarrels with the surrounding Sikh States and internal dissensions have greatly reduced the patrimony.

The present chief, H. H. Raja Brij Indar Singh Bahadur, was born in 1896 and succeeded in 1906. During his minority the administration is carried on by a council under the presidency of an Extra Assistant Commissioner. The State supports one company of Imperial Service Sappers.

**Jind.**—The three Native States of Jind, Patiala and Nabha form collectively the Phulkian States, the most important of the Cis-Sutlej States. This area is the ancestral possession of the Phulkian houses. It lies mainly in the great natural tract called the Jangal (desert or forest), but stretches north-east into that known as the Pawadh and southwards across the Ghaggar into the Nardak, while its southernmost tract, round the ancient town of Jind, claims to lie within the sacred limits of Kurukshetra. This vast tract is not, however, the exclusive property of the States; for in it lie several islands of British territory, and the State of Maler Kotla enters the centre of its northern border. On the other hand, the States hold many outlying villages surrounded by British territory.

The history of Jind as a separate State dates from 1763 when the confederated Sikhs captured Sirhind town and partitioned the whole Jind Province. The Maharaja of Jind, H. H. Maharaja Sir Ranbir Singh, K.C.S.I., was born in 1879 and succeeded in 1887. He is descended from the ancestors of the Phulkian family. During the Sikh War and the Mutiny the Raja of Jind was of great service to the British and was rewarded with a grant of nearly 600 square miles of land. The principal crops are wheat, barley and gram. The only industries of importance are the manufactures of gold and

silver ornaments, leather and woodwork and cotton cloth. The capital is Sangrur which is connected by a State Railway with the North-Western Railway. The administration of the State is divided between four departments under heads of departments which form together a State Council controlled by the Maharaja.

**Kapurthala.**—This State consists of three detached pieces of territory in the great plain of the Doab. The ancestors of the chief of Kapurthala at one time held possessions both in the cis and trans-Sutlej and also in the Bari Doab. In the latter lies the village of Ahlu, whence the family springs, and from which it takes the name of Ahluwalla. Some of these States were confiscated after the first Sikh War and when the Jullundur Doab came under the dominion of the British Government in 1846, the estates north of the Sutlej were maintained in the independent possession of the Ahluwalla chieftain, conditional on his paying a commutation in cash for the service engagements by which he had previously been bound to Ranjit Singh. The Bari Doab estates have been released to the head of the house in perpetuity, the civil and police jurisdiction remaining in the hands of the British authorities. For good services during the Mutiny, the Raja was rewarded with a grant of other States in Oudh in which, however, he exercises no ruling powers, though in Oudh he is, to mark his superiority, addressed as Raja-i-Rajagan. The present chief is H. H. Maharaja Sir Jagatjit Singh Bahadur, G.C.S.I., who was born in 1872 and succeeded in 1877. The chiefs of Kapurthala are Sikhs. Sardar Jassa Singh was always known as Jassa Kalal; but the family claim descent from Rana Kapur, a semi-mythical member of the Rajput house of Jaisalmer, who is said to have left his home and founded Kapurthala 900 years ago. Only a small proportion of the population however are Sikhs, the majority being Mahomedans. The chief crops are wheat, gram, maize, cotton and sugar-cane. The town of Sultanpur in this State is famous for hand-painted cloths. The main line of the North-Western Railway passes through part of the State and the Grand Trunk Road runs parallel to it. A branch railway from Jullundur City to Ferozepur passes through the State. Kapurthala maintains a battalion of Imperial Service Infantry and a small force of local troops. The capital is Kapurthala, which is said to have been founded in the eleventh century.

Agent to the Lieutenant-Governor for Kapurthala, the Commissioner of the Jullundur Division.

**Maler Kotla.**—This State consists of a level sandy plain bounded by the district of Ludhiana on the north and by Patiala territory elsewhere. The Nawabs of Maler Kotla are of Afghan descent, and originally held positions of trust in the Sirhind province under the Moghal Emperors. As the Empire sank into decay during the eighteenth century, the local chiefs gradually became independent. The result was constant feuds with the adjacent Sikh States. After the victory of Laswari, gained by the British over Sindhia in 1803, and the subjugation and flight of Holkar in 1805, when the Nawab of Maler Kotla joined the British army, the British Government

succeeded to the power of the Marathas in the districts between the Sutlej and the Jurna. The final treaty which affirmed the dependence of the State on the British Government was signed after the submission of Ranjit Singh in 1809. The present Nawab is H. H. Nawab Ahmad Ali Khan Bahadur, who was born in 1881 and succeeded in 1908. The chief products are cotton, sugar and opium. The State supports one company of Imperial Service Sappers. The capital is Maler Kotla.

**Mandi.**—This is a mountainous State in the upper reaches of the Beas. It has a history of considerable length, as it once formed part of the Suket State. Its relations with the British were determined after the battle of Sobraon in 1846. The present chief H. H. Raja Bhawani Singh was installed in 1903. He is assisted in the administration by the Wazir who has extensive executive and judicial powers. The principal crops are rice, maize, wheat and millet. About three-fifths of the State are occupied by forest and grazing lands. It is rich in minerals. The capital is Mandi, founded in 1527, which contains several temples and other buildings of interest and is one of the chief marts for commerce with Ladakh and Yarkhand.

**Nabha.**—Nabha is one of the Phulkian States. It consists of two distinct parts, the main portion comprising 12 separate pieces of territory scattered among the other two Phulkian States of Patiala and Jind. The second portion forms the *nizamat* of Bawal in the extreme south-east of the Punjab. It became a separate State in 1763. After the victory of Sobraon, the chief was deposed and about a quarter of his territory was confiscated. For his loyalty during the Mutiny the chief was rewarded with territory which forms the present Bawal Nizamat. The present chief is H. H. Maharaja Ripudaman Singh Malwadar Bahadur, who was born in 1883 and succeeded in 1911. He is assisted in the administration by a council of three members which also acts as a court of appeal. The State supports one battalion of Imperial Service Infantry. The State is traversed by the main line and by three branches of the North-Western Railway. The Rajputana Malwa Railway crosses Bawal. The chief crops are gram, wheat and pulses, the chief industries are manufactures of silver and gold ornaments and brass utensils.

**Patiala.**—This is the largest of the Phulkian States, but its territory is scattered and interspersed by small estates and even single villages belonging to other villages and British districts. Its history as a separate State begins in 1762. During the Sikh War and the Mutiny the Maharaja was loyal and was substantially rewarded. The present Chief H. H. Maharajadhiraja Sri Sir Bhupinder Singh Mahindar Bahadur, G.C.I.E., was born in 1891 and succeeded in 1900. During his minority his administrative functions were exercised by a council of regency consisting of three members. The principal crops are gram, barley and wheat. Cotton and tobacco are also grown in parts of the State. It possesses valuable forests. The State is rich in antiquities especially at Pinjaur, Sunam and Sirhind. The North-Western Railway traverses the State. It contains an Imperial Service contingent, of a regiment of cavalry and two battalions of infantry.

In 1900 it was decided by the Government of India to appoint a Political Agent for Patiala, and the other two Phulkian States of Jind and Nabha were included in the Agency, to which was afterwards added the Mahomedan State of Bahawalpur. The headquarters of the Agency are at Patiala.

**Sirmur (Nahan).**—This is a hilly State in the Himalayas under the Political control of the Commissioner of Delhi Division. Its history is said to date from the 11th century. In the eighteenth century the State was able to repulse the Gurkha invasion, but in 1793 the Gurkhas were invited to aid in the suppression of an internal revolt in the State and they in turn had to be evicted by the British. In 1857 the Raja rendered valuable services to the British, and during the second Afghan War he sent a contingent to the North-West Frontier. The present chief is H. H. Raja Amar Parkash Bahadur, who was born in 1888 and succeeded in 1911. The main agricultural feature of the State is the recent development of the Kiarda Dun, a fertile level plain which produces wheat, gram, rice, maize and other crops. The State forests are valuable and there is an iron foundry at Nahan which was started in 1867 but, being unable to compete with the imported iron, is now used for the manufacture of sugar-cane crushing mills. The State supports an Imperial Service Corps of Sappers and Miners which served in the Tirah Expedition of 1897.

## UNDER THE GOVERNMENT OF BURMA.

Under this Government there are four Shan States, two in the Mandalay Division (Hkamti Long and Mong Mit); and two in the Sagaing Division (Hsawngshup and Singkalang Hkamti), the area of which is 7,374 square miles and the population about 67,051, consisting chiefly of Buddhists. There are in addition 48 petty States, 5 in the Northern Shan States, 43 in the Southern Shan States, with an area of 58,885 square miles and a population of 1,358,498 consisting of Buddhists and Animists.

The Shan States—though a portion of British India, do not form part of Burma proper and are not comprised in the regularly administered area of the Province. They lie for the most part to the east of Upper Burma.

They owed allegiance to the Burmese Government, but were administered by their own rulers (Sawbwas) and the British Government has continued to a certain extent the semi-independence which it found existing in 1885. As at present defined, the Shan States are divided into—

1. States under the supervision of the Superintendent, Northern Shan States; whose head quarters are at Lashio; area 14,294 square miles and population 58,952.
2. States under the supervision of the Superintendent and Political Officer, Southern Shan States, whose head quarters are at Taunggyi; area 40,484 square miles and population 900,202;



There are five States in the Northern and 38 in the Southern Shan States. There are in addition two Shan States under the supervision of the Commissioner of the Mandalay Division, namely, Hkamti Long in the unadministered territory to the north of the Myitkyna District and Mong Mit lying north-east of the Ruby Mines District. In the north-west of the Upper Chindwin District towards Manipur there are two small Shan States, Hsawngshup and Singkaling Hkamti, whose administration is supervised by the Commissioner of the Sagaing Division.

The Northern Shan States are North Hsenwl in the north, South Hsenwl near the Salween in the east, Manglon in the south-east, Hsipaw in the south-west, and Tawngpeng in the north-west. The Wa States east of the Salween can hardly be said to be under British control. In ordinary matters the States are administered by their Sawbwas, who are assisted by amats, or ministers, in various departments. The Superintendent exercises general control over the jurisdiction of justice and is vested with wide revisionary powers. In revenue matters the Sawbwas administer their States in accordance with local customs which have been but little modified. Of prime importance in the economy of the country is the Mandalay Lashio railway, 180 miles in length, of which 126 miles lie within the Northern Shan States. The line is a single track, and was constructed in the face of considerable engineering difficulties, of which not the least notable was

the Gokteik gorge, now spanned by a viaduct. It had been proposed to continue the railway about 90 miles farther east to the Kunlong, where is a ferry over the Salween, and eventually to penetrate into Yunnan; but this extension is for the present in abeyance.

The most important of the Southern Shan States are Kengtung and Yawngwe. Under the supervision of the Superintendent and Political officer and his Assistants, the chiefs—known as Sawbwas, Myozas, and Ngwegunhmus—control their own States, exercising revenue, civil and criminal jurisdiction therein. There are in all 9 Sawbwas, 18 Myozas and 11 Ngwegunhmus.

**Karenni.**—This district consists of five States, with a total area of approximately 4,200 square miles and a population of about 64,000, lying on the frontier south of the Shan States. The largest State is Kantarawadi with an area of 3,000 square miles, a population of nearly 40,000, and a gross revenue of about 14 lakhs of rupees. More than half of the inhabitants belong to the Red Karens, a people low in the scale of civilisation. An Assistant Political Officer is posted at Lolkaw as Agent of the British Government, and a certain amount of control is exercised through him over the chiefs. The principal wealth of the country is teak timber, and the considerable alien population is largely supported by the timber trade, which, however, has declined greatly in the last few years. The Karens themselves are distinguished as hunters.

### UNDER THE GOVERNMENT OF ASSAM.

The only State of importance under the Chief Commissioner of Assam is **Manipur**, which has an area of 8,456 square miles and a population of 575,835, of which about 60 per cent. are Hindus, and 36 per cent. animistic forest tribes. Manipur consists of a great tract of hilly country and a valley, about 30 miles long 20 miles wide, which is shut in on every side. The State adopted Hinduism in the early eighteenth century, when it came under a Naga Raja who subsequently made several invasions into Burma. On the Burmese retreating, Manipur negotiated a treaty of alliance with the British, in 1762. The Burmese again invaded Manipur during the first Burmese War and on the conclusion of peace, in 1826, Manipur was declared independent. The chief event in its subsequent history was the intervention of the British in 1891 to establish the claim of Kula Chandra Singh as Maharaja, followed by the treacherous murder of the Chief Commissioner, Mr. Quinlon and the officers with him and the withdrawal of the escort which accompanied him. The staple crop is rice. Forests of great variety cover the whole of the hill ranges. Since 1891 the State has been administered by a Political Agent as the Raja, H. H. Raja Chera Chand

Singh, who was born in 1885, and was placed on the gadi after the outbreak, is still a minor.

**Khasi and Jaintia Hills.**—These petty chiefships, 25 in number, with a total area of about 3,900 square miles and a population of 100,000, are included under the Government of Assam. Most of the States have treaties or engagements with the British Government. The largest of them is Jhymrim, the smallest is Nonglowlai, which has a population of 160. Most of them are ruled by a chief or Siem. The Siemship usually remains in one family, but the succession was originally controlled by a small electoral body constituted from the heads of certain priestly clans. Of recent years there has been a tendency to broaden the elective basis, and the constitution of a Khasi State has always been of a very democratic character, a Siem exercising but little control over his people. Among many of the north-east frontier tribes there is little security of life and property, and the people are compelled to live in large villages on sites selected for their defensive capabilities. The Khasis seem, however, to have been less distracted by internal warfare, and the villages, as a rule, are small.

### UNDER THE GOVERNMENT OF CENTRAL PROVINCES.

The Central Provinces include fifteen feudatory States subordinate to the administration, with an area of 31,174 square miles and a population of 2,117,002. One of the States, Makral, lies within Hoshangabad District; the remainder are situated in the Chhattisgarh Division,

to the different Districts of which they were formerly attached. Their relations with Government are controlled by a Political Agent. The States vary greatly in size and importance, Sakti the smallest, having an area of 188 square miles and Bastar the largest an area of 13,062

square miles. They are administered by hereditary chiefs, who hold on conditions of loyalty and good government set forth in patents and acknowledgments of fealty, but are nominally free from direct interference save in the case of sentences of death, which require the Chief Commissioner's confirmation. But, as a fact, the Government has exercised a very large amount of control, owing mainly to the frequency with which the States have been taken under direct management, because of either the minority or the misconduct of the chief. The States pay a tribute to Government which amounts in the aggregate to about 2½ lakhs.

Statistics relating to the chief States are contained in the following table:—

State.	Area.	Population 1911.	Revenue (approximate) in Lakhs.
	Sq. Miles.		Rs.
Bastar ..	13,062	433,310	3
Jashpur ..	1,963	174,458	1
Kanker ..	1,429	127,014	2
Khairagarh ..	931	155,471	3
Nandgaon ..	931	167,362	4
Raigarh ..	1,486	218,860	2
Surguja ..	6,055	248,703	2
Eight other States.	5,377	411,824	6
Total ..	31,174	2,117,002	23

**Bastar.**—This State, which lies to the south-east corner of the Provinces, is the most important of the group. It has an area of 13,062 square miles and a population of 433,310. The family of the Raja is very ancient, and is stated to belong to the Rajputs of the Lunar race. Up to the time of the Marathas, Bastar occupied an almost independent position, but a tribute was imposed on it by the Nagpur government in the eighteenth century. At this period the constant feuds between Bastar and the neighbouring State of Jeypore in Madras kept the country for many years in a state of

anarchy. The chief object of contention was the Kotapad tract, which had originally belonged to Bastar, but had been ceded in return for assistance given by Jeypore to one of the Bastar chiefs during some family dissensions. The Central Provinces Administration finally made this over to Jeypore in 1863, on condition of payment of tribute of Rs. 3,000, two-thirds of which sum was remitted from the amount payable by Bastar. By virtue of this arrangement the tribute of Bastar was, until recently, reduced to a nominal amount. The cultivation of the State is extremely sparse. Rice is the most important crop. The Superintendent of the State is an extra Assistant Commissioner who has two assistants under him. After a recent period of disturbance the State has returned to complete tranquillity and precautions are being taken to remove all causes of unrest by better supervision over the minor State officials and a very considerate forest policy. The chief town is Jagdalpur on the Indravati River.

**Surguja.**—Until 1905 this was included in Chota Nagpur State of Bengal. The most important feature is the Manipat, a magnificent tableland forming the southern barrier of the State. The early history of Surguja is obscure; but according to a local tradition in Palamau, the present ruling family is said to be descended from a Raksel Raja of Palamau. In 1758 a Maratha army overran the State, and compelled its chief to acknowledge himself a tributary of the Bhonsla Raja. At the end of the eighteenth century, in consequence of the chief having aided a rebellion in Palamau against the British, an expedition entered Surguja; and, though order was temporarily restored, disputes again broke out between the chief and his relations, necessitating British interference. Until 1818 the State continued to be the scene of constant lawlessness; but in that year it was ceded to the British Government under the provisional agreement concluded with Mudhoji Bhonsla of Berar, and order was soon established. The principal crops are rice and other cereals. The population is mainly aboriginal, the wild Korwa tribe being a perpetual source of trouble. A band of them committed several murders and robberies in 1910.

## Native States' Tribute.

Many of the States pay tribute, varying in amount according to the circumstances of each case, to the British Government. This tribute is frequently due to exchanges of territory or settlement of claims between the Governments, but is chiefly in lieu of former obligations to supply or maintain troops. The actual receipts in the form of tribute and contributions from Native States in the year 1911-12 are summarised in the following table. The relations of the States to one another in respect of tributes are complicated, and it would serve no useful purpose to enter upon the question. It may, however, be mentioned that a large number of the States of Kathiawar and Gujarat pay tribute of some kind to Baroda, and that Gwalior claims tribute from some of the smaller States of Central India.

### STATES PAYING TRIBUTE DIRECTLY TO THE GOVERNMENT OF INDIA.

	£	£
Tribute from Jalpur .. .. .	26,667	
" " Kotah .. .. .	15,048	
" " Udaipur .. .. .	13,333	
" " Jodhpur .. .. .	6,533	
" " Bundi .. .. .	4,222	
" " Other States .. .. .	15,170	
Contribution of Jodhpur towards cost of Erinpura Irregular Force ..	7,667	
" " of Kotah towards cost of Deoli Irregular Force ..	13,333	
" " of Bhopal towards cost of Bhopal Levy ..	10,753	
" " of Jaora towards cost of United Malwa Contingent ..	19,711	
Contributions towards cost of Malwa Bhil Corps .. .. .	5,816	
Fees on succession .. .. .		57,279
		3,437
Total ..		142,290
<i>Central Provinces and Berar.</i>		
Tribute from various States .. .. .	....	15,696
Tributes from Shan States .. .. .	23,893	
" " other States .. .. .	33	
		23,927
<i>Eastern Bengal and Assam.</i>		
Tribute from Manipur .. .. .	3,333	
" " Ramrai .. .. .	13	
		3,347
<i>Bengal.</i>		
Tribute from various States .. .. .	....	3,483
<i>United Provinces.</i>		
Tribute from Benares .. .. .	12,748	
" " Kapurthala (Bahraich) .. .. .	8,733	
		20,882
<i>Punjab.</i>		
Tribute from Mandi .. .. .	6,667	
" " other States .. .. .	3,086	
Fees on succession .. .. .	133	
		9,886
<i>Madras.</i>		
Tribute from Travancore .. .. .	52,207	
Peshkash and subsidy from Mysore .. .. .	233,333	
" " " " Cochin .. .. .	13,339	
" " " " Travancore .. .. .	888	
		209,768
<i>Bombay.</i>		
Tribute from Kathiawar .. .. .	31,129	
" " various petty States .. .. .	2,825	
Contribution from Baroda State .. .. .	22,068	
" " Jagirdars, Southern Mahratta Country .. .. .	5,765	
Subsidy from Cutch .. .. .	5,484	
Fees on succession .. .. .	3,467	
		70,727
Grand Total ..		505,005

It was announced at the Coronation Durbar of 1911 that there would in future be no Nazrana payments on successions.

## Foreign Possessions in India.

Portugal and France both hold small territorial possessions in the Indian Peninsula.

The Portuguese possessions in India consist of the province of Goa, situated within the limits of the Bombay Presidency, on the Arabian Sea coast; the small territory of Daman on the Gujarat coast, at the entrance to the Gulf of Cambay; and the little island of Diu, lying off the southern extremity of the Kathiawar Peninsula.

### GOA.

Goa forms a compact block of territory surrounded by British districts. Savantwadi State lies to the north of it, the Arabian Sea on the west and North Kanara on the south, and the eastern boundary is the range of the Western Ghats, which separates it from the British districts of Belgaum and North Kanara. The extreme length from north to south is 82 miles and the greatest breadth from east to west 40 miles. The territory has a total area of 1,301 square miles and comprises the island of Goa, acquired by the Portuguese in 1510; the division of Velhas Conquistas, or old Conquests, comprising the neighbouring districts of Bardez and Salsette, acquired in 1543; and the Novas Conquistas, or New Conquests, comprising the districts of Pernem, Bicholim or Batagram, Satali, Ponda or Antruz, Zambaulim or Panchmal, and Canacona or Advota, acquired in the latter half of the 18th century. The small island of Andijiv, situated opposite the port of Karwar, in the British district of North Kanara, forms administratively a portion of the province of Goa. This was acquired in 1505. The whole country is hilly, especially the western portion, the predominating physical feature being the Western Ghats, which besides bounding the country along the north-east and south-east, jut off westward and spread across the country in a succession of spurs and ridges. There are several conspicuous isolated peaks, of which the highest, Sonsagar, is 3,827 feet high.

The country is intersected by numerous rivers running westward from the Ghats, and the principal eight, which are all navigable, are in size of some importance. Goa possesses a fine harbour, formed by the promontories of Bardez and Salsette. Half-way between these extremities lies the *cabo*, or cape, which forms the extremity of the island of Goa. This divides the whole bay into two anchorages, known as Aguada and Marmagao. Both are capable of accommodating the largest shipping from September to May, but Aguada is virtually closed during the south-west monsoon, owing to the high winds and sea and to the formation of sand bars across the estuary of the Mandavi river, which opens into Aguada. Marmagao is accessible at all times and is therefore the harbour of commercial importance. It is the terminus of the railway running to the coast from the inland British system of lines, a breakwater and port have been built there and the trade is considerable, being chiefly transit trade from British territory.

### The People.

The total population in the whole Goa territory was 475,513 at the census of 1900. This

gives a density of 343 persons to the square mile and the population showed an increase of 6 per cent. since the census ten years previously. In the Velhas Conquistas 91 per cent. of the population is Christian. In the Novas Conquistas Christians and Hindus are almost equally numerous. The Moslems in the territory are numbered in a few thousands. The Christians still very largely adhere to caste distinctions, claiming to be Brahmans, Charados and low castes, which do not intermarry. The Hindus are largely Maratha and do not differ from those of the adjacent Konkani districts of Bombay. All classes of the people, with the exception of Europeans, use the Konkani dialect of Marathi, with some admixture of Portuguese words. The official language is Portuguese, which is commonly spoken in the capital and the principal towns, as well as by all educated people. Nearly all the Christians profess the Roman Catholic religion and are spiritually subject to an archbishop, who has the titles of Primate of the East and Patriarch of the East Indies and exercises ecclesiastical jurisdiction also over a great portion of British India. (The Christians of Daman and Diu are subject to a Bishop who bears the titles of Bishop of Daman and Archbishop of Cranganore.) There are numerous churches in Goa, mostly built by the Jesuits and Franciscans prior to the extinction of the religious orders in Portuguese territory. The churches are in charge of secular priests. Hindus and Mahomedans now enjoy perfect freedom in religious matters and have their own places of worship. In the early days of Portuguese rule the worship of Hindu gods in public and the observance of Hindu usages were strictly forbidden and rigorously suppressed.

### The Country.

One-third of the entire territory of Goa is stated to be under cultivation. A regular land survey was only recently made. The fertility of the soil varies considerably according to quality, situation and water-supply. The Velhas Conquistas are as a rule better cultivated than the Novas Conquistas. In both these divisions a holding of fifteen or sixteen acres would be considered a good sized farm, and the majority of holdings are of smaller extent. The staple produce of the country is rice, of which there are two good harvests, but the quantity produced is barely sufficient to meet the needs of the population for two-thirds of the year. Next to rice, the culture of cocoanut palms is deemed most important, from the variety of uses to which the products are applied. Hilly places and inferior soils are set apart for the cultivation of cereals and several kinds of fruits and vegetables are cultivated to an important extent. The condition of the agricultural classes in the Velhas Conquistas has improved during recent years, owing to the general rise in the prices of all classes of agricultural produce and partly to the current of emigration to British territory. The people in the Novas Conquistas have long been reported as reduced to great want through the oppression of the landowners. State forests are found in the Novas Con-

quistas. They cover an area of 116 square miles and are under cultivation and yield some profit to the administration. Iron is found in parts of the territory, but has not been seriously worked. Manganese also exists and was worked to an important extent a few years ago.

### **Commerce.**

In the days of its glory, Goa was the chief entrepot of commerce between East and West and was specially famous for its trade in horses with the Persian Gulf. It lost its commercial importance with the downfall of the Portuguese empire and its trade is now insignificant. Few manufacturing industries of any moment exist, and most manufactured articles in use are imported. Exports chiefly consist of coconuts, betel nuts, mangoes and other fruits and raw produce. A line of railway connects Marmagao with the Madras and Southern Maratha Railway. Its length from Marmagao to Castle Rock, above the Ghats, where it joins the British system, is 51 miles, of which 49 are in Portuguese territory. The railway is under the management of the Madras and Southern Maratha Railway administration, and the bulk of the trade of Marmagao port is what it brings down from and takes to the interior. The telegraphs in Goa territory are worked as part of the system of British India, and are maintained jointly by the British and Portuguese Governments. The Goa territory was formerly subject to devastating famines and the people now suffer heavy losses in times of drought. They are then supplied, though at great cost, with rice from British territory.

### **The Capital.**

Nova Goa, the present capital of Portuguese India, comprehends Panjim and Ribandar, as well as the old city of Goa, and is six miles in extent. Old Goa is some five miles distant from the new city. Panjim occupies a narrow strip of land leading up to the Cabo, the cape dividing the Aguada bay from that of Marmagao, and mainly slopes down to the edge of the Aguada. It was selected as the residence of the Portuguese Viceroy in 1759, and in 1843 it was raised to its present rank as the capital of Portuguese India. The appearance of the city, with its row of public buildings and elegant private residences, as seen from the water, is very picturesque and this impression is not belied by a closer inspection of its neat and spacious roads, bordered by decent, tidy houses. The most imposing public structures are the barracks, an immense quadrangular building the eastern wing of which accommodates the Lyceum, the Public Library and the Government Press. Other noticeable buildings are the Cathedral and various churches, the viceregal palace, the High Court and so on. The square in the lower part of the town is adorned with a life-sized statue of Albuquerque standing under a canopy.

### **History.**

Goa was captured for the Portuguese by Alfonso de Albuquerque in 1510. Albuquerque promptly fortified the place and established Portuguese rule on a firm basis. From this time Goa rapidly rose in importance and be-

came the metropolis of Portuguese power in the East. There was constant fighting with the armies of the Bijapur kingdom, but the Portuguese held their own and gained the surrounding territory now known as the Velhas Conquistas.

The subsequent history of the town is one of luxury, ostentation and decay. Goa reached its summit of prosperity at the end of the sixteenth century. The accounts of travellers show that the Goa of those days presented a scene of military, ecclesiastical and commercial magnificence which has had no parallel in the British capitals of India. But the Portuguese based their dominion in India on conquest by the sword and they laboured to consolidate it by a proselytizing organisation which throws the missionary efforts of every other European power in India into the shade. Old Goa, as the ruins of the old capital are called to-day, had a hundred churches, many of them of magnificent proportions, and the Inquisition was a power in the land. The result showed how rotten was this basis and how feebly cemented the superstructure reared upon it.

After the genius of Albuquerque and the energies of the early Viceroys had spent themselves, their armies constituted a vast idle population in the capital. The work of conquest was over and it left behind it a gay and wealthy city of conquerors who had nothing to do.

### **Modern Times.**

The Portuguese were unable to hold their own against the native banditti. There was frequently recurring fighting and in 1741 the Marathas invaded the neighbourhood of Goa and threatened the city itself. An army of 12,000 men arrived from Portugal at the critical moment. The invaders were beaten off, and the Novas Conquistas were added to the Portuguese possessions. In 1844 the shelter given by Goa to fugitives from justice in British territory threatened to bring about a rupture with the British Government at Bombay. In 1852 the Ranes of Satari, in the Novas Conquistas revolted. In 1871 the native army in Goa mutinied and the king's own brother came from Lisbon to deal with the trouble and having done so disbanded the native army, which has never been reconstituted. But another outbreak among the troops took place in 1895 and the Ranes joining them the trouble was again not quieted until the arrival of another special expedition from Lisbon. The Ranes again broke out in 1901 and again in 1912, troops being again imported to deal with the last outbreak, which was only reported concluded last summer.

### **Administration.**

Goa is regarded as an integral portion of the Portuguese Empire and, with Daman and Diu, forms for administrative purposes one province subject to a Governor-General, who is appointed directly by the Lisbon Government and holds office for five years. Besides his civil functions, he is invested with supreme military authority in the province.

The Governor-General is aided in his administration by a Council composed of a Chief Secretary, the Archbishop of Goa or, in his

absence, the chief ecclesiastical authority exercising his functions, the Judges of the High Court, the two highest military officers in Goa, the Attorney-General, the Inspector da Fazenda, the Health Officer and the President of the Municipal Chamber or Corporation of the capital (Camara Municipal das Ilhas), which is the oldest Municipal body in the East. As a rule, all the members give their opinions and vote in every matter on which they are consulted by the Governor-General. There are five other juntas, or councils, called the Junta Geral da Provincia (general council of the province), the Conselho da Provincia (the council of the province), the Conselho

Technico das Obras publicas, the Conselho-Inspector de Instrucao publica, and the Conselho da Agricultura. The first of these is composed of the Chief Secretary, the Archbishop or his substitute, the Attorney-General, the Inspector da Fazenda, the Director of Public Works, the Health Officer, a Professor of the Medico-Surgical College, a Professor of the Lyceum, or educational College, a Professor of the Normal School and a representative from each of the Municipal Corporations of the province.

In addition to this machinery of administration there are subordinate agencies for the local government of every district.

### DAMAN.

The settlement of Damam lies at the entrance to the Gulf of Cambay, about 100 miles north of Bombay. It is composed of two portions, namely, Damam proper, lying on the coast, and the detached pargana of Nagar Havili, separated from it by a narrow strip of British territory and bisected by the B. B. & C. I. Railway. Damam proper contains an area of 22 square miles and 26 villages and has a population (1900) of 17,391. Nagar Havili has an area of 60 square miles and a population (1900) of 24,280. The town of Damam was sacked by the Portuguese in 1531, rebuilt by the natives and retaken by the Portuguese in 1558, when they made it one of their permanent establishments in India. They converted the mosque into a church and have since built eight other places of worship. Of the total population the number of Christians is 1,563. The number of houses is 8,971, according to the same census. The native Christians adopt the European costume, some of the women dressing themselves after the present European fashion, and others following the old style of petticoat and mantle once prevalent in Spain and Portugal.

The soil of the settlement is moist and fertile, especially in the pargana of Nagar Havili,

but despite the ease of cultivation; only one-twentieth part of the territory is under tillage. The principal crops are rice, wheat, the inferior cereals of Gujarat and tobacco. The settlement contains no minerals. There are stately forests in Nagar Havili, and about two-thirds of them consist of teak, but the forests are not conserved and the extent of land covered by each kind of timber has not been determined. Before the decline of Portuguese power in the East, Damam carried on an extensive commerce, especially with the east coast of Africa. In those days it was noted for its dyeing and weaving.

The territory forms for administrative purposes a single district and has a Municipal Chamber and Corporation. It is ruled by a Governor invested with both civil and military functions, subordinate to the Governor-General of Goa. The judicial department is administered by a judge, with an establishment composed of a delegate of the Attorney-General and two clerks. In Nagar Havili the greater part of the soil is the property of the Government, from whom the cultivators hold their tenures direct. A tax is levied on all lands whether alienated or the property of the State. The chief sources of revenue are land-tax, forests, excise and customs duties.

### DIU.

Diu is an island lying off the southern extremity of the Kathiawar Peninsula, from which it is separated by a narrow channel through a considerable swamp. It has a small but excellent harbour, where vessels can safely ride at anchor in two fathoms of water and owing to the great advantages which its position offers for trade with Arabia and the Persian Gulf, the Portuguese were fired at an early period with a desire to obtain possession of it. This they gained, first by treaty with the Sultan of Gujarat and then by force of

arms. Diu became opulent and famous for its commerce. It has now dwindled into insignificance. The extreme length of the island is about seven miles and its breadth, from north to south, two miles. The area is 2 square miles. The population of the town of Diu, from which the island takes its name, is said to have been 50,000 in the days of its commercial prosperity. The total population of the island is according to the census of 1900 is 14,614, of whom 343 were Christians.

## FRENCH POSSESSIONS.

The French possessions in India comprise five Settlements, with certain dependent lodges, or plots. They aggregate 203 square miles, and had a total population in 1912 of 282,386. The first French expedition into Indian waters, with a view to open up commercial relations, was attempted in 1603. It was undertaken by private merchants at Rouen, but it failed, as also did several similar attempts which followed. In 1642 Cardinal Richelieu founded the first Campagne d'Orient, but its efforts

met with no success. Colbert reconstituted the Company on a larger basis in 1664, granting exemption from taxes and a monopoly of the Indian trade for fifty years. After having twice attempted, without success, to establish itself in Madagascar, Colbert's Company again took up the idea of direct trade with India and its President, Caron, founded in 1668 the Comptoir, or agency, at Surat. But on finding that city unsuited for a head establishment he seized the harbour of Trincomalee in Ceylon

from the Dutch. The Dutch, however, speedily retook Trincomalee; and Caron, passing over to the Coromandel coast, in 1672 seized St. Thome, a Portuguese town adjoining Madras which had for twelve years been in the possession of Holland. He was, however, compelled to restore it to the Dutch in 1674.

The ruin of the Company seemed impending when one of its agents, the celebrated François Martin, suddenly restored it. Rallying under him a handful of sixty Frenchmen, saved out of the wreck of the settlements at Trincomalee and St. Thome, he took up his abode at Pondicherry, then a small village, which he purchased in 1683 from the Raja of Gingee. He built fortifications, and a trade began to spring up; but he was unable to hold the town against the Dutch, who wrested it from him in 1693, and held it until it was restored to the French by the Peace of Ryswick in 1697. Pondicherry became in this year, and has ever since remained, the most important of the French Settlements in India. Its foundation was contemporaneous with that of Calcutta. Like Calcutta, its site was purchased by a European Company from a native prince, and what Job Charnock was to Calcutta, François Martin proved to Pondicherry. On its restitution to the French by the Peace of Ryswick in 1697, Martin was appointed Governor, and under his able management Pondicherry became an entrepôt of trade.

Chandernagar, in Lower Bengal, had been acquired by the French Company in 1688, by grant from the Delhi Emperor; Mahe, on the Malabar Coast, was obtained in 1725-6, under the government of M. Lenoir; Karikal, on the Coromandel Coast, under that of M. Duma, in 1739. Yanam, on the coast of the Northern Circars, was taken possession of in 1750, and formally ceded to the French two years later.

#### Administration.

The military command and administration-in-chief of the French possessions in India are vested in a Governor, whose residence is at Pondicherry. The office is at present held by an Acting Governor, who is M. H. Lejeune. He is assisted by a minister of the interior, secretaries in the different administrative departments, and a principal judicial officer. In 1879 local councils and a council-general were established, the members being chosen by a sort of universal suffrage within the French territories. Ten municipalities or communal boards were erected under a decree issued in 1880; namely, at Pondicherry, Oulgaret, Villenour, Bahur, Karikal, La Grande Alcee, Nedungadu, Chandernagar, Mahe and Yanam. On municipal boards natives are entitled to a proportion of the seats. Civil and criminal courts, courts of first instance, and a court of appeal compose the judicial machinery. The army and establishments connected with the Governor and his staff at

Pondicherry, and those of the local governors or *chefs de service* at Chandernagar, Yanam, Mahe and Karikal, together with other headquarters charges, necessarily engross a large proportion of the revenue. All the state and dignity of an independent Government, with four dependent ones, have to be maintained. This is effected by rigid economy, and the prestige of the French Government is worthily maintained in the East. Pondicherry is also the scene of considerable religious pomp and missionary activity. It forms the seat of a Prefecture Apostolique, founded in 1828, consisting of a Prefet Apostolique and a body of priests for all French India; and of the Missions Etrangères, the successors of the Mission du Carnatic founded by the Jesuits in 1776. But the chief field of this mission lies outside the French Settlements; a large proportion of its Christians are British subjects and many of the churches are in British territory. The British rupee is the only legal tender within French territories. A line of railway running via Villenour, from Pondicherry to Villupuram on the South Indian Railway, maintains communication with Madras and the rest of British India, and Karikal is linked to the same railway by the branch from Peralam. A Chamber of Commerce consisting of fourteen members, nine of them Europeans or persons of European descent, was reorganised in 1879. The capital, Pondicherry, is a very handsome town, and presents, especially from the sea, a striking appearance of French civilisation.

#### People and Trade.

The Settlements are represented in Parliament at Paris by one senator and one deputy. These are at the present time Mons. H. Flandin and Mons. P. Bluyssen, respectively. At Pondicherry the birth-rate in 1911 was 42.7, and the death-rate 34.3 per 1,000. There were in 1911, 53 primary schools and 4 colleges, all maintained by the Government, with 266 teachers and 5,240 pupils (1,018 being girls). Local revenue and expenditure (budget of 1913) 1,740,575 rupees; expenditure of France (budget of 1913), 138,000 rupees. Outstanding debt, January 1, 1912, 470,400 francs. The principal crops are paddy, groundnut, and ragi. There are at Pondicherry 5 cotton mills, and at Chandernagar 1 jute mill; the cotton mills have, in all, 1,622 looms and 73,092 spindles, employing 12,020 persons. There are also at work 2 oil factories and a few oil presses for ground nuts, 2 ice factories and a cocoatine factory. The chief exports from Pondicherry are oil seeds. At the ports of Pondicherry, Karikal, and Mahe in 1912 the imports amounted to 9,031,780 francs, and the exports to 37,218,209 francs. At these three ports in 1912, 368 vessels of 784,311 tons entered and 360 of 788,492 tons cleared. Pondicherry is visited by French steamers sailing monthly between Colombo and Calcutta in connection with the Messageries Maritimes.

#### PONDICHERRY.

Pondicherry is the chief of the French Settlements in India and its capital is the headquarters of their Governor. It is situated on the Coromandel Coast, 105 miles from Madras by road and 122 by the Villupuram-Pondicherry branch of the South Indian Railway.

The area of the Settlement is 115 square miles and its population in 1912 was 184,754. It consists of the four communes of Pondicherry, Oulgaret, Villenour and Bahur. The Settlement was founded in 1674 under François Martin. In 1693 it was captured by the Dutch;

but was restored in 1809. It was besieged four times by the English. The first siege under Admiral Boscawen in 1748 was unsuccessful. The second, under Eyre Coote in 1761, resulted in the capture of the place, which was restored in 1765. It was again besieged and captured in 1778 by Sir Hector Munro, and the fortifications were demolished in 1779. The place was again restored in 1785 under the Treaty of Versailles of 1783. It was captured a fourth time by Colonel Braithwaite in 1793, and finally restored in 1816.

The Settlement comprises a number of isolated pieces of territory which are cut off from the main part and surrounded by the British District of South Arcot, except where they border on the sea. This fact occasions considerable difficulty in questions connected with crime, land customs and excise. The Collector of South Arcot is empowered to deal with ordinary correspondence with the French authorities on these and kindred matters, and in this capacity is styled the Special Agent. At Pondicherry itself is a British Consular

Agent accredited to the French Government, who is usually an officer of the Indian Army. The town is compact, neat and clean, and is divided by a canal into two parts, the *Ville blanche* and the *Ville noire*. The *Ville blanche* has a European appearance, the streets being laid at right angles to one another, with trees along their margins reminding the visitor of continental boulevards, and the houses being constructed with courtyards and embellished with green venetians. All the cross streets lead down to the shore, where a wide promenade facing the sea is again different from anything of its kind in British India. In the middle is a screw-pile pier, which serves, when ships touch at the port, as a point for the landing of cargo, and on holidays as a general promenade for the population. There is no real harbour at Pondicherry; ships lie at a distance of about a mile from the shore, and communication with them is conducted by the usual *masula* boats of this coast. Facing the shore end of the pier is a statue of the great Dupleix, to whom the place and the French name owed so much.

### CHANDERNAGAR.

Chandernagar is situated on the bank of the Hooghly, a short distance below Chinsura. Population (1912) 25,293. The town was permanently occupied by the French in 1688, though previously it had been temporarily occupied by them at a date given as 1672 or 1676. It did not, however, rise to any importance till the time of Dupleix. It changed hands between British and French various times during the Napoleonic wars and was finally restored to the French in 1816.

The former grandeur of Chandernagar has disappeared, and at present it is little more than a quiet suburban town with little external trade. The railway station on the East Indian

Railway is just outside French territory 22 miles from Calcutta (Howrah). The chief administrative officer is the Administrator, who is subordinate to the Governor of the French Possessions. The peculiar situation of Chandernagar affords unusual facilities for the escape from British territory of thieves and for the operations of smugglers in opium and other excisable articles. Considerable trouble was experienced a few years ago by the escape of political refugees there. The chief public institution is the College Dupleix, formerly called St. Mary's Institution, founded in 1882 and under the direct control of the French Administrator.

### KARIKAL.

Karikal lies on the Coromandel Coast between the Tanjore District of Madras and the Bay of Bengal. The Settlement is divided into three communes, containing 110 villages in all, and covering an area of 53 square miles. It is governed by an Administrator subordinate to the Governor at Pondicherry. The population has in recent years rapidly decreased. In 1883 it was 93,055; in 1891, 70,526; in 1901 56,595 and 1912, 56,570; but the density is still very high, being 1,068 persons per square mile. Kumbakonam is the only taluk in Tanjore District which has a higher density. Each of the three communes—namely, Karikal, La Grande Aldee, and Nedungadu—possesses a mayor and council. The members are all elected by universal suffrage, but in the municipality of Karikal half the number of seats are reserved for Europeans or their descend-

ants. The country is very fertile, being irrigated by seven branches of the Cauvery, besides many smaller channels.

The capital of the settlement is situated on the north bank of the river Arasalar, about 1½ miles from its mouth. It has a brisk trade in rice with Ceylon, and to a less extent with the Straits Settlements. It has no commerce with France, and very little with other French colonies. The port is merely an open roadstead, provided with a light-house 142 feet high, the light in which has a range of from 8 to 10 miles. Indian labourers emigrate from Karikal to the French colonies in large numbers. In 1890 Karikal was connected with Porelem on the Tanjore District Board Railway. Karikal finally came into French possession on the settlement after 1815.



## The Indian Frontiers.

By one of the dramatic moves which characterise Asiatic politics, the Indian frontier problem has suddenly changed. For nearly seventy years it was dominated by one obsession, the fear of Russian invasion through Afghanistan. By the Anglo-Russian treaty of 1907 that bogie was laid; whether it will ever be revived none can now say. But the old isolation of India has been so largely broken down; she has been brought into such close contact with the world movements of the West and East, that there is no rest. The North-West has almost ceased to trouble the Indian Foreign Office, but the condition of Persia and the resuscitation of the land route to India have brought problems no less acute in their train.

Lord Curzon epitomised these changes in one of his budget speeches, when he said:—

"I doubt if even the thoughtful public has at all realised the silent but momentous change that is going on, and that will one day have an effect upon India that is at present but dimly discerned. In the old days, and it may almost be said up to the last fifteen years, the foreign relations of India were practically confined to her dealings with Afghanistan, and to the designs or movements of the great Power beyond; and the foreign policy of India had little to do with any other foreign nation. It is true that we had territories or outposts of influence that brought us into contact with Persia and Turkey, and that we had occasional dealings with the Arabian tribes. Now all that is changed; and events are passing which are gradually drawing this country, once so isolated and remote, into the vortex of the world's politics, and that will materially affect its future. The change has been due to two reasons. Firstly, as our own dominion has expanded, and our influence upon our frontier consolidated, we have been brought into more direct and frequent relations with the countries lying immediately beyond. For instance, the annexation of Upper Burma brought us into contact with an important corner of the Chinese Empire, and created a batch of frontier and other political problems of its own. But the second reason is much more important. Europe has woken up, and is beginning to take a revived interest in Asia. Russia with her vast territories, her great ambitions, and her unarrested advance, has been the pioneer in this movement, and with her and after her have come her competitors, rivals and allies. Thus, as all these foreigners arrive upon the scene and push forward into the vacant spots, we are slowly having a European situation recreated in Asia, with the same figures upon the stage. The great European Powers are also becoming the great Asiatic Powers. Already we have Great Britain, Russia, France, Germany and Turkey; and then, in place of all the smaller European kingdoms and principalities, we have the Empires and States of the East, Japan, China, Tibet, Siam, Afghanistan, Persia—only a few of them strong and robust, the majority containing the seeds of inevitable decay. There lie in these events and in this renewed contact or collision, as the case may be, between the East and the West,

omens of the greatest significance to this country."

### Duel with Russia.

A sketch of the frontier difficulties of the Indian Government since the British began to assume territorial power in India is really a reflection of the history of Europe. Our earliest dangers were either internal, or came from the sea. The sea menace was not of long duration. The defeat of the Portuguese and the Dutch left us with only one serious rival, the French, and when the sea power of France had been shattered by the foiling of the gallant Suffren, her schemes for dominion broken by the feeble support given to the great Duplex, and her hopes of advantage in India finally dispersed by the overthrow of Hyder Ali, then the foreign menace lapsed for well-nigh half a century. Meantime the process of internal consolidation advanced so rapidly that when renewed pressure came from the North, there was no rival to the British in India, and only one considerable military power, the Sikhs under Ranjit Singh. Such were the conditions when fears of Russian intrigues in Afghanistan, and the belief that the Amir Dost Mahomed was lending a ready ear to them, induced the disastrous attempts to set the exiled Shah Shuja on the throne of Afghanistan, and inaugurated the most deplorable episode in Indian frontier policy, the war of 1838. That was the first stage in the long duel between Great Britain and Russia for influence in Central Asia and on the confines of India. There are no pages in British history which are so unpleasant to turn. Our policy may be summed up in a sentence—impotent opposition to the Russian advance in Central Asia. Russian policy was much more simple. In part her advance sprang from the inevitable clash of a higher civilisation with a lower; in part, no doubt, her officers were not loth to pay off, by setting us in a ferment in Central Asia, scores made on the heights of Balaklava and at the Berlin Conference. It was not until war was avoided by a hair's breadth that relations began to improve. The Russo-Afghan affray at Peshawar in 1885 brought both countries to a realisation of what they were nearly fighting over. After that there was a slow improvement. The Russo-Afghan boundaries were delimited. The frontiers on the Pamirs were settled. There were alarms and excursions during the Russo-Japanese war, when erroneous accounts were circulated of great Russian concentrations in Central Asia, and again, when intrigues with Tibet forced Lord Curzon to send the Younghusband Expedition to Lhasa. But the ground was gradually prepared for the Anglo-Russian Agreement, and since the conclusion of that instrument the Frontier question, as it used to be understood, has faded into the background; it has ceased to be an international question, and has descended into a local issue between the Government of India and the Amir of Afghanistan and the Tribesmen.

### Land Route Revived.

The new frontier question lies further west; it is wrapped up in the revival of the land route

to India. There are few parallels in history to the closing of these ancient highways. Twenty-two centuries ago, when Alexander set out on his career of conquest, there was an easy high road from Mesopotamia to Seistan, and not a very difficult one to Mekran; and so it came about that migratory movements, either compulsory or voluntary, continued through centuries, ever extending their scope till checked by the deserts of the Indian frontier, or the highlands of the Pamirs and Tibet, or the cold wastes of Siberia. Over the broad highway from Europe to India there was for centuries a great restless human tide ever on the move. The closing of this road was due to the eruption of the Afghan, the Turk and the Mongol, and in particular to the final downfall of the Empire of the Khalifs before the destroying hordes of Chenghiz Khan and Tamerlane. A few adventurous travellers make their way to Europe through Turkish Arabistan, or *via Persia*, or even across the Karakoram or the Pamirs to join the Russian railways. But the only land route for goods is the recently improved caravan track from Nushki to Meshed through Seistan; and the sea route which was opened by Vasco da Gama has so well served India that until a decade ago only one attempt was made to improve land communications—the

abortive proposal for a railway up the Euphrates Valley.

### International Railways.

All this is in process of rapid transformation. The landward isolation of India is doomed. In a very few years there will be through rail connection from Haidar Pasha, opposite Constantinople, with Baghdad, if not Basra, at the head of the Persian Gulf—in all save name a purely German enterprise. The Russians are not content to permit their position to be turned. They have a concession to connect any line which they may build to Teheran with a branch of the Baghdad Railway from Baghdad to the Persian frontier at Khannikin; indeed they are under an obligation to construct it. But their ambitions go farther. They desire to extend their present railroad at Baku right across Persia to connect with the Indian system at Karachi, as a joint Russo-British enterprise. Even if this scheme does not mature, railway construction in Persia is inevitable; a British Syndicate is pressing for a line from Muhammarah to the Teheran-Khannikin line at Khoramabad. These changes, taken in conjunction with the decay of Persia, are profoundly affecting Indian frontier policy; they constitute the real frontier question to-day.

## THE PERSIAN GULF.

The situation in the Persian Gulf, which is at present the corner stone of the Indian frontier problem, is one of baffling indefiniteness. Our first appearances in these waters was in connection with the long struggle for supremacy with the Portuguese, the French and the Dutch, who had established trading stations there. With the capture and destruction of the great entrepot which the Portuguese had established at Ormuz, and the supersession of the land route by the sea route, coupled with the appearance of anarchy in the interior, the importance of the Gulf declined. The Indian Government remained there primarily to preserve the peace, and this task it has since successfully performed. Piracy, which was as destructive as the ravages of the Barbary corsairs, was stamped out, the Trucial Chiefs who occupy the Pirate Coast were gradually brought into close relations with the British Government, and the vessels of the Royal Navy have since kept watch and ward in the Gulf, whilst our Consuls have regulated the external affairs of the Arab rulers on the Arabian Coast.

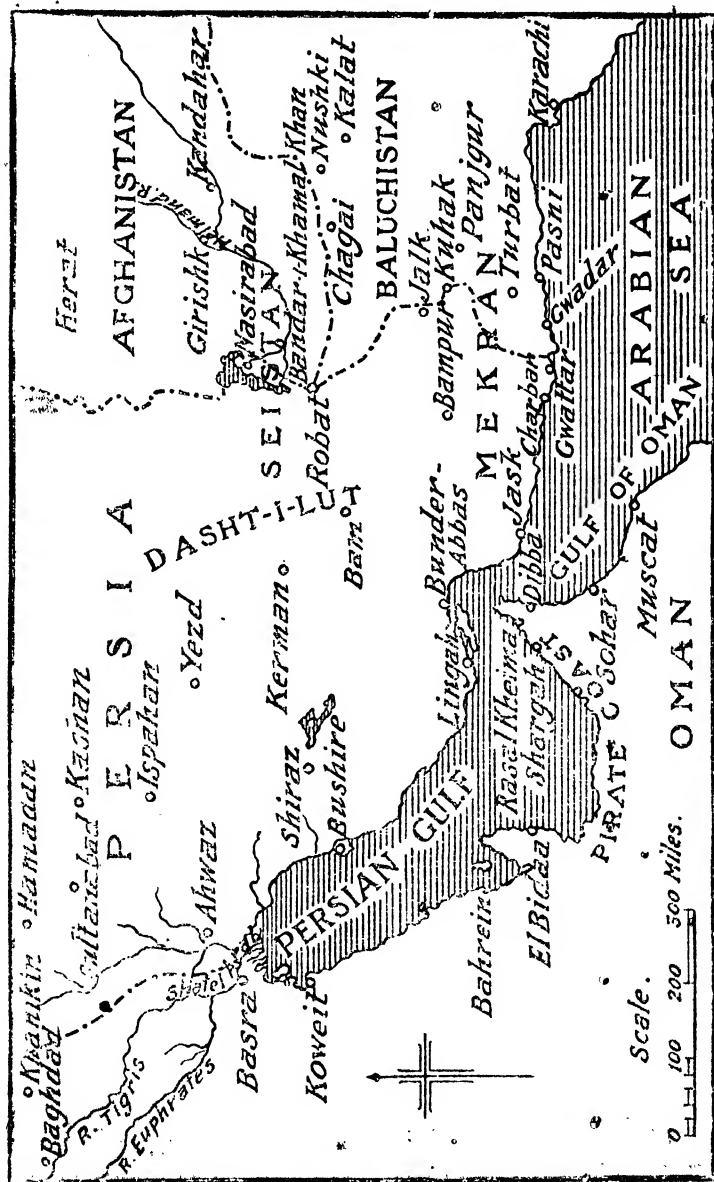
### • A Policy of Abnegation.

In return for these services Great Britain has claimed no selfish advantages. The waters of the Gulf are as free to the navigation of other flags as to the Red Ensign. The only territorial possession is the tiny station of Bassidun. Point after point has at one time or another been occupied by British troops. Muhammarah and the lower valley of the Karun valley were occupied during the war with Persia in 1857. Bushire was long held in the same connection, and still bears marks of our regime in the one tolerable road. The Island of Kharak was occupied from 1838 to 1842, and again in 1857. We had a military station at Kals during the Pate wars, and a military and naval station at Kishid from 1820 to 1879. Jask was occu-

pied as a cable station, but subsequently returned to Persia. The only surveys of the waters are British; the only cables are British; the few navigation marks are maintained by the British India Company, and two steamship services, a fast mail service and a slow trading service, are run by the same corporation. Apart from these direct acts, Great Britain might at any time have seized the whole Arabian Coast and the Persian shore. But in pursuit of a resolute self-denying ordinance, she has kept the peace and demanded no reward.

### European Intrusions.

Left to herself, Great Britain would desire no other policy. But the affairs of the Persian Gulf have passed into the region of international politics, and the past quarter of a century has witnessed successive efforts to turn the British position. Basing her interference on a treaty which gives her equal rights with Great Britain, France attempted to acquire a coaling station at Jissa, near Maskat, and subsequently obstructed British efforts to stamp out the slave trade, and the arms traffic, which was supplying weapons of precision to the tribes on our North-Western Frontier. Turkey, whether acting on her own volition, or as the *avant courier* of Germany, threatened the territory of the Sheikh of Bahrein, who is in special relations with us, and of the Sheikh of Kuwait, who owns the only harbour which would make a Gulf terminus of the Baghdad Railway. Persia, stirred from Teheran, when Russian influence at the court of the Shah in Shah was supreme, established a foreign Customs service in the Gulf, and pressed our good friend, the Sheikh of Muhammarah. Russia and Germany sent heavily-subsidised merchant ships into the Gulf, in order to establish trading rights, and posted Consuls, where



there was neither trade nor legitimate interest. The last of these machinations, a German attempt to wring a concession from the Sheikh of Shargah, was comparatively recently defeated. The collapse of authority in Persia has raised, in an acute form, the whole future of the Persian shore. In short, the situation has changed from one where the influence of Great Britain was supreme, to one where it is challenged at every point, more especially by the indirect process of commercial strategy, at which a nation, brought up in the traditions of free trade, is handicapped.

### The Gulf and the Empire.

With these attacks there has come a closer appreciation of the bearing of the Persian Gulf on the defence of the Indian Empire. The strategic importance of these waters has been laid down by a writer of unchallenged authority and unbiased mind. Writing in the *National Review*, Admiral Mahan said, "Concession in the Persian Gulf, whether by formal arrangement (with other Powers) or by neglect of the local commercial interests which now underlie political and military control, will imperil Great Britain's naval situation in the farther East, her political position in India, her commercial interests in both, and the Imperial tie between herself and Australasia." Following this, successive British Governments have made declarations of policy which are satisfactory, as far as words can go. Speaking in the House of Lords on May 5, 1903, Lord Lansdowne, then Secretary of State for Foreign Affairs, said "We (i. e., His Majesty's Government) should regard the establishment of a naval base or of a fortified port in the Persian Gulf by any other Power as a very grave menace to British interests which we should certainly resist with all the means at our disposal." This declaration of policy has since been endorsed by Sir Edward Grey. But the question which arises is whether, in view of the intrusion of foreign Powers with aggressive designs, and the changing conditions on the littoral, the purely negative policy which has hitherto satisfied Great Britain will suffice. It is a hard fact, but a true one, that if British authority disappeared to-morrow, it would leave no other relic than a few consular buildings and the tradition of justice and fair dealing. That is a question which can best be considered after a brief survey of the various jurisdictions which are established in the Gulf.

### Maskat.

Maskat, which is reached in about forty-eight hours from Karachi, is outside the Persian Gulf proper. It lies three hundred miles south of Cape Musandim, which is the real entrance to the Gulf, but its natural strength and historical prestige combine to make it inseparable from the politics of the Gulf, with which it has always been intimately associated.

The approach to Maskat is dramatic. The mail steamer gently feels her way along a coast more black and forbidding even than the iron-bound littoral of the Gulf of Suez, which is so familiar to the eastward passenger. Suddenly there appears on the coast the white houses of the trading settlement of Matra, which lies to the north of Maskat. Then with

a sharp turn the bow of the steamer passes under a gaunt rock painted with the names of the warships which have visited Maskat for half a century, and enters the landlocked harbour. Twin fortresses erected by the Portuguese command the heights which overlook the town; the town itself clusters on the shore and climbs the high ground behind it, and itself is shut off from the Arabian desert by a stout wall on the landward side. Formerly Maskat was part of a domain which embraced Zanzibar, and the Islands of Kishm and Larak, with Bunder Abbas on the Persian shore. Zanzibar was separated from it by agreement, and the Persians succeeded in establishing their authority over the possessions on the eastern shore. Sultan Syed Faysal, the intelligent Arab ruler, who reigned over Maskat only, though he claimed a shadowy suzerainty over the chiefs on the coast of Oman, died in October 1913.

The relations between Britain and Maskat have been intimate for a century and more. It was under British auspices that the separation between Zanzibar and Maskat was effected, the Sheikh accepted a British subsidy in return for the suppression of the slave trade and in 1892 sealed his dependence upon us by concluding a treaty pledging himself not to cede any part of his territory without our consent. Foreign intrigues with Maskat did not commence until 1894, when the French, in pursuit of the pin-pricking policy through which they were avenging Egypt, and perhaps to assist Russia, established a consulate there. The Sultan was induced to cede to France a coaling station at Jissa, but this was such a clear violation of the Treaty of 1892 that it could not make good, and France had to accept the poor alternative of a leased depot. A more serious dispute arose over the use of the French flag to cover the slave trade. Native craft would secure the protection of the French flag by registering at Jibuti, and then defy the Sultan of Maskat, and they were enabled to traffic in slaves with impunity, inasmuch as there was rarely a French warship in the neighbourhood to search them. In April 1903 the trouble came to a head, and the French flagship *Infatigable* was sent to Maskat to demand the release of dhows which had been arrested for a flagrant breach of the quarantine rules. This emphasised the necessity of a permanent settlement, and the question was referred to the Hague Tribunal, and a working compromise arranged. It was adjudged by the Hague tribunal in 1905 that "after January 2, 1892, France was not entitled to authorise vessels belonging to subjects of H. H. the Sultan of Maskat to fly the French flag," except on condition that their "owners or officers-out had established, or should establish, that they had been considered and treated by France as her protégés before the year 1863," though "owners of dhows who before 1892 had been authorised by France to fly the French flag retained this authorisation as long as France renewed it to the grantee." The conclusion of the *entente* with France put an end to these pin-pricks, but one important issue remains outstanding. France claims under the Anglo-French Treaty of 1862 freedom of trade with Maskat. There has been carried on for years a lucrative arms traffic with the Gulf, rifles and ammunition being shipped from Europe to Maskat, and

thence distributed all over the littoral and even to the North-West Frontier of India. The extent of this evil compelled the British Government to intervene, and elaborate arrangements were made to check the traffic by arresting the dhows carrying arms and by harrying the gunrunners ashore. This is more fully considered under Gunrunning (q. v.). In effect, the British warships had to witness the dumping of cargoes on the shore at Maskat, see them loaded into dhows, and trust to their own vigilance to arrest these consignments on the high seas. Prompted by the Colonial Party, the French Government refused to yield one jot of their treaty rights, in the hope that Great Britain would buy them out by surrenders at Gambia. The difficulty has been largely overcome by the establishment of a bonded warehouse for arms at Maskat, where all consignments have to be deposited, and whence they are only issued under certificates of destination.

The present troubles of the Sultan of Maskat are domestic rather than external. His hold over the tribesmen outside the city is precarious. In May 1913 the principal Ibadi Sheikh, Abdullah-bin-Hanidas Salimi, rose in revolt, defeated the Sultan's troops, and threatened the capital, which was protected by Indian Troops.

*British Consul*, Major S. G. Knox, C.I.E.  
*Agency Surgeon*, Major J. W. Little, I.M.S.

### The Pirate Coast.

Turning Cape Musandim and entering the Gulf Proper, we pass the Pirate Coast, controlled by the six Trucial Chiefs. The ill-name of this territory has now ceased to have any meaning, but in the early days it had a very real relation to the actual conditions. The pirates were the boldest of their kind, and they did not hesitate to attack on occasion, and not always without success, the Company's ships of war. Large expeditions were fitted out to break their power, with such success that since 1820 no considerable punitive measures have been necessary. The Trucial Chiefs are bound to Great Britain by a series of engagements, beginning with 1806 and ending with the perpetual treaty of 1853 by which they bound themselves to avoid all hostilities at sea, and the subsequent treaty of 1873 by which they undertook to prohibit altogether the traffic in slaves. The relations of the Trucial Chiefs are controlled by the British Resident at Bushire, who visits the Pirate Coast every year on a tour of inspection. The German attempt to obtain a concession from the Sheikh of Shargh has been mentioned. A more serious question arose in 1912 when a landing party from H. M. S. Fox, searching for contraband arms at Debal, was fired at by the resident Arabs and five men killed and nine wounded. The Sheikh made ample amends to the British Resident, and submitted to a fine. There was at first the suspicion that this *emeute* arose from the spread of pan-Islamism on the coast, studiously fostered from Constantinople, and that it indicated a weakening respect for British authority. But fuller enquiries tended to show that it arose from an unfortunate series of misunderstandings. The commercial importance of the Pirate Coast is increasing through the rise of Debal. Formerly Lingah

was the entrepot for this trade, but the exactions of the Belgian Customs officials in the employ of Persia has driven this traffic from Lingah to Debal. The Trucial Chiefs are—Debal, Abu Thabee, Shargah, Ajman, Um-al-Gawain and Ras-el-Kheyna.

### Bahrein.

North of the Pirate Coast lies the little archipelago which forms the chiefship of the Sheikh of Bahrein. Of this group of islands only those of Bahrein and Maharak are of any size, but their importance is out of all proportion to their extent. This is the great centre of the Gulf pearl fishery, which, in a good year, may be worth half a million pounds sterling. The anchorage is wretched, and at certain states of the tide ships have to lie four miles from the shore, which is not even approachable by boats, and passengers, mails and cargo have to be landed in on the donkeys for which Bahrein is famous. But this notwithstanding the trade of the port is valued at over a million and a quarter sterling, and the customs revenue, which amounts to some eighty thousand pounds, makes the Sheikh the richest ruler in the Gulf.

Bahrein has passed through more than usually chequered experiences. Not the least formidable of these are the efforts of the Turks to threaten its independence. These took definite form in the third quarter of the last century, when Midhat Pasha, Vali of Basra, occupied the promontory of El Katr, as well as El Katif, over against Bahrein, and converted El Hasa into a district. The war with Russia put an end to these designs, but they were revived and the Turks at El Kater are still a menace to Bahrein, but negotiations for their withdrawal are pending. The Sheikh, by the treaty of 1861, entered into special engagements with the British Government, by whom his rights are guaranteed.

In the neighbourhood of Bahrein is the vast burying ground which has hitherto baffled archeologists. The generally accepted theory is that they are relics of the Phœnicians, who are known to have traded in these waters.

*Political Agent*, Major A. P. Trevor.

### Koweit.

In the north-west corner of the Gulf lies the port which has made more stir than any place of similar size in the world. The importance of Koweit lies solely in the fact that it is the one possible Gulf terminus of the Baghdad Railway. This is no new discovery, for when the Euphrates Valley Railway was under discussion, General Chesney selected it under the alternative name of the Grane—so called from the resemblance of the formation of the Bay to a pair of horns—as the sea terminus of the line. Nowhere else would Koweit be called a good or a promising port. The Bay is 20 miles deep and 5 miles broad, but so shallow that heavy expense would have to be incurred to render it suitable for modern ocean-going steamers. It is sheltered from all but the westerly winds, and the clean thriving town is peopled by some 20,000 inhabitants, chiefly dependent on the sea, for the mariners of Koweit are noted for their boldness and hardihood.

The political status of Koweit would baffle the ingenuity of the international jurist, to find a definition. Nominally the Sheikh owns allegiance to the Sultan of Turkey, from whom

he has accepted the honorary title of Kaimakan, or Local Governor. In practice, he has always been independent. In 1898, the Turks attempted to convert their nominal sovereignty into something more actual; but the Sheikh Mubarak approached the British Government and placed his interests under their special protection. When, however, the German surveyors earmarked Koweit for the terminus of their line, the position of the Sheikh was indirectly attacked. To the north of Koweit there is a deep indentation in the lowlying shore chiefly occupied by the swampy island of Bubyah. Here a long narrow channel runs to Umm Khasa, the Khor Abdulla. It is sometimes held to be an alternative to Koweit as a Gulf terminus, and with a view to earmarking it, the Turks have established military posts at Umm Khasa and on Bubyah Island. Threatened by domestic feuds, raids by sea, and attack by land, Sheikh Mubarak, with a British backing, has fended off all assaults on his position, and with realisation of the fact that Basra must, in any circumstances, be the commercial terminus of the Baghdad Railway, the importance of Koweit has tended to recede.

*Political Agent, Captain W. H. I. Shakespear.*

### Muhammerah.

On the opposite side of the entrance to the Shatt-el-Arab lie the territories of a Sheikh who stands to the Persian Government in much the same relation as does Sheikh Mubarak of Koweit to the Government of Turkey—Sheikh Khazal of Muhammerah. Nominally, he is subject to Teheran, on whose behalf he governs his territories as Governor; in practice he is more like a semi-independent vassal. In personal characteristics, too, Sheikh Khazal has much in common with Mubarak; he has proved that he possesses many of the qualities of an administrator, and has resisted Persian encroachments on his authority in all directions save one—despite his strong antipathy to the agents of a centralised government, the Persians have installed an officer of their Belgian Customs service at Muhammerah. The town, favourably situated near the mouth of the Karun River, has grown in importance since the opening of the Karun River route to trade through the enterprise of Messrs. Lynch Brothers. This route provides the shortest passage to Ispahan and the central tableland, and already competes with the older route by way of Bushire and Shiraz. This importance has grown since the Anglo-Persian Oil Company established refineries at Muhammerah for the oil which they win in the rich fields which they have tapped near Ahwaz. Its importance will be still further accentuated, if the scheme for a railway to Khorrehabad by way of Dizful matures. A concession for a road by this route has long been held by a British Company, and surveys for a railway are being made. There is a tacit assurance from the Persian Government that if a practicable scheme is put forward, they will facilitate the work. Such a line, meeting the projected branch from Teheran to Khannikin, would intercept the trade of Central Persia and make Muhammerah the principal outlet for the commerce of the country. Sheikh Khazal is believed to have formed an excellent working understanding with his brother chief across the water, and as the head

of the great Kaab tribe he is no mean power in south-western Persia.

*Consul at Ahwaz, Captain A. H. J. Grey  
Consul for Arabistan (Muhammerah), Major  
L. B. H. Haworth.*

### Basra.

In a sense Basra and Turkish Arabistan can hardly be said to come within the scope of the frontiers of India, yet they are so indissolubly associated with the politics of the Gulf that they must be considered in relation thereto. Basra is the inevitable sea terminus of the Baghdad Railway. It stands on the Shatt-el-Arab, sixty miles from its mouth, favourably situated to receive the whole water-borne trade of the Tigris and Euphrates Rivers. This is already considerable, although Turkish obstruction has closed the Euphrates to navigation, as well as the Tigris above Baghdad—between Basra and Baghdad there are two services of river steamers, one controlled by Messrs. Lynch Brothers and the other by a Turkish Company. The local traffic is valuable, for the richness of the date groves on either side of the Shatt-el-Arab is indescribable, there is a considerable entrepot traffic, whilst Basra is the port of entry for Baghdad and for the trade with Persia; which follows the caravan route *via* Kermandshah and Hamadan. When the Baghdad Railway is open, Basra must absorb the whole trade of the eastern zone, that is the trade which finds an easier outlet on the east than at Alexandria on the Mediterranean. That is without taking account of the possibilities of the irrigation scheme prepared by Sir William Willcocks, which should revive the glories of ancient Mesopotamia, and make Arabistan another Egypt. Even now ocean-going steamers trade regularly with Basra and load grain in bulk from its wharves. The one obstacle to the development of the port is the bar at the entrance to the Shatt-el-Arab, where there are no more than ten feet of water at low tide, and where steamers drawing more than sixteen to eighteen feet have, even at high tide, to discharge part of their cargoes into lighters before making the river. The cost of dredging the bar would not be large, and that done a first class port is almost ready made at Basra. Nothing can prevent it from becoming the port of the Middle East, and if ever the Baghdad Railway is extended to the Gulf, it will be for political not for commercial reasons.

*Political Resident and H. M. Consul-General for Turkish Arabia (Baghdad), J. G. Lorimer, C.I.E.  
Residency Surgeon, and Assistant to the Resident, Captain N. E. H. Scott, I.M.S.  
British Consul, Mr. F. E. Croft.*

### The Persian Shore.

The Persian shore presents fewer points of permanent interest. The importance of Bushire is administrative rather than commercial. It is the headquarters of Persian authority, the residence of the British Resident, and the centre of many foreign consuls. It is also the main entrepot for the trade of Shiraz, and competes for that of Ispahan. But the anchorage is wretched and dangerous, the road to Shiraz passes over the notorious kotsak which preclude the idea of rail connection, and if ever a railway to the central tableland is opened, the commercial value of Bushire will dwindle to insignificance. Further south lies Lingah, reputed

to be the prettiest port on the Persian coast, but its trade is being diverted to Debal on the Pirate Coast. In the narrow channel which forms the entrance to the Gulf from the Arabian Sea is Bunder Abbas. Here we are at the key of the Gulf. Bunder Abbas is of some importance as the outlet for the trade of Kerman and Yezd. It is of still more importance as a possible naval base. To the west of the town between the Island of Kishm and the mainland, lie the Clarence Straits which narrow until they are less than three miles in width, and yet contain abundance of water. Here, according to sound naval opinion, there is the possibility of creating a naval base which would command the Gulf. The great obstacle is the climate, which is one of the worst in the world. On the opposite shore, under the shadow of Cape Musandim, lies another sheltered deep-water anchorage, Elphinstone's Inlet, where the climate conditions are equally vile. But between these two points there is the possibility of controlling the Gulf just as Gibraltar controls the Mediterranean. For many years Bunder Abbas loomed large in public discussions as the possible warm water port for which Russia was seeking. Now it has reappeared in connection with the Trans-Persian railway. It is understood that the British Admiralty insist on that line meeting the sea at Bunder Abbas, where it would enter the British zone, and whence, along the Coast of Mekran, it would be commanded from the sea. The Russian concessionaires wish the line to strike the sea much further east either at the actual British frontier, Gwettur, or at Chahbar, where there are believed to be the makings of a deep-water port. So far the project has not passed beyond the stage of academic discussion. (q. v. Railways to India). On the Mekran coast, there is the cable station of Jask, and the possible port of Chahbar, but here Persian authority is for all practicable purposes non-existent, and the British Government steps in when occasion demands.

*Political Resident in the Persian Gulf, Lt.-Col.*

Sir Percy Cox, K.C.I.E., O.S.I., Bushire.

*First Assistant, Captain R. L. Birdwood.*

*Second Assistant, Lieut. P. G. Loch.*

*Residency Surgeon at Bushire, Major S. Hunt.*

*Consul at Kerman, Captain D. L. R. Lorimer.*

*Consul at Bunder Abbas and Assistant to the Resident, Captain H. V. Biscoe.*

### Summary.

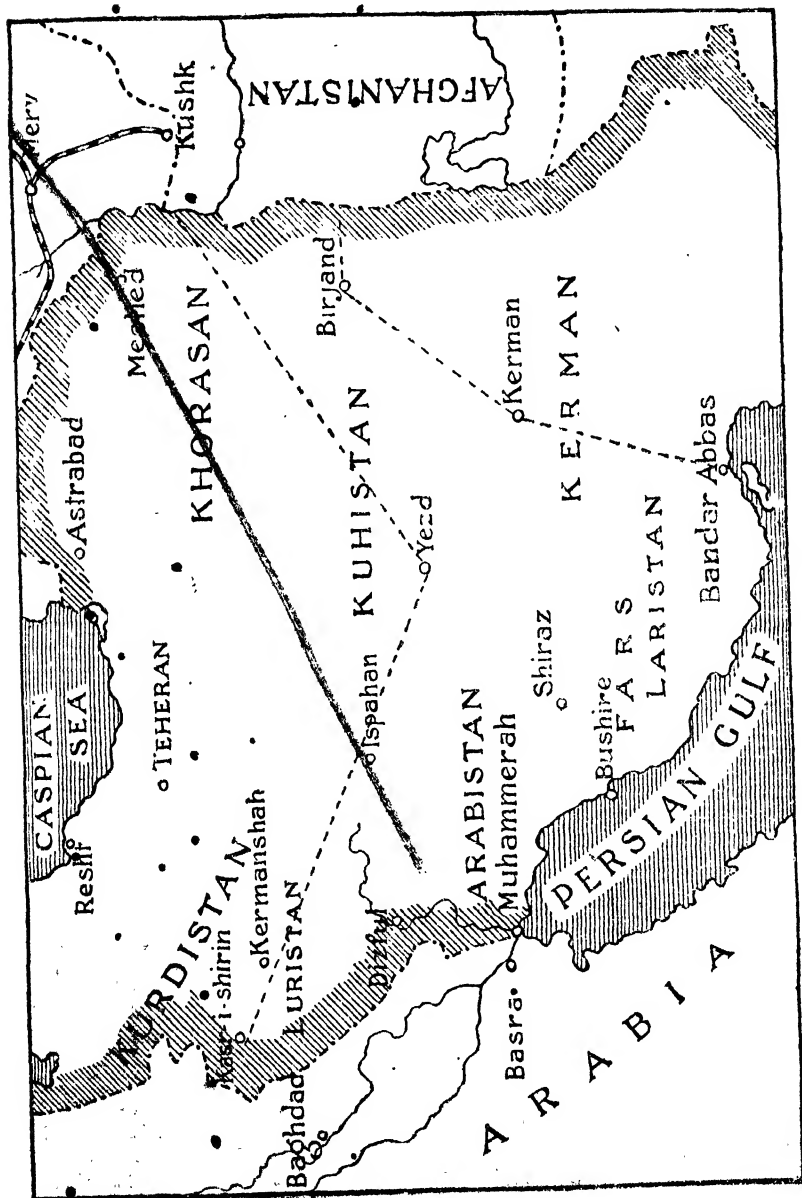
From this brief summary of the conditions in the Persian Gulf, it will be seen that the British position is a nebulous one. We have stamped out piracy, we have kept the peace,

we have sought no exclusive privileges, the commerce of these waters is freely open to the ships of all nations. But this policy is in the main negative rather than positive; it is so barren of definite territorial achievements that it is singularly open to attack; it depends for its permanent success on the maintenance of the *status quo* in a part of the world where conditions are fast changing nor was it in any way regularised by the Anglo-Russian agreement. On the contrary, by that instrument the British zone stopped short at Bunder Abbas, the British sphere being restricted to the east of a line drawn from the Afghan frontier to Gazik, Birjand, Kerman and Bunder Abbas. All Persia between this line and the delimitation of the Russian zone by a line from Kasr-i-Shirin, Isfahan, Yezd, and Kakh, to the junction of the Persian Afghan, and Russian frontiers—that is to say the whole of the Persian Gulf littoral—is in the neutral zone. The Agreement made no mention of the Persian Gulf, but with the Convention a letter was published from Sir Edward Grey to the British Ambassador at St. Petersburg, announcing that the Persian Gulf lay outside its scope, but that the Russian Government had stated during the negotiations that it did not deny the special interests of Great Britain in the Gulf and it was intimated that Great Britain reasserted them. In many respects, the immediate position is not unsatisfactory. Foreign intrigue at Maskat has ceased. The Trucial Chiefs are firmly united to the British Government. The negotiations with Turkey now proceeding will regularise the position. By them the Baghdad Railway will not proceed beyond Basra without the approval of the British Government. As far as Basra it will be a purely German enterprise; but Great Britain will claim two representatives on the Board of Directors in order to prevent differentiation of rates. The Sheikh of Koweit will recognise the suzerainty of Turkey, but he is not to be interfered with, and Turkey will accept the Treaty of 1899. The Turkish post at El Kâir, opposite Bahrein, will be withdrawn. There is promise of some definite achievement in the Muhammerah-Khorremabad Railway. The real menace comes from the Persian shore. If the Persian Government recovers all will be well. But if the Persian Government completely collapses—by no means an impossibility—British policy will have to be definite. Either she will have to assume territorial responsibilities in Southern Persia, not from land hunger but in order to keep others out, with the enormous military burdens which they will entail. Or else, she will have to concentrate on the naval key to the Gulf and remain passive in face of what occurs within it.

### GUNRUNNING IN THE PERSIAN GULF.

The question of gunrunning in the Persian Gulf is inseparable from the position on the North-Western Frontier, because the copious supplies of modern rifles, with suitable ammunition, from this source have transformed the military value of the tribesmen. Prior to 1897 this trade, though considerable, concerned Turkey and Persia rather than Great Britain. Arms were brought from Europe, France,

Belgium, and England, to Maskat, where they were discharged and freely distributed round the Persian and Arabian shores. The Frontier tribesman had to obtain his modern rifle by stealing, even if it meant the murder of a sentry, or else content himself with the jezail, or the rough country-made rifle, which is turned out in small numbers by the Kohat Pass Afridis. But after the rising of 1897 these rifles began to





filter into the North-Western Frontier, replacing the homely zeal. The Sultan of Maskat issued a proclamation empowering British and Foreign men of war to search for arms, and the first consignment seized was in the s. s. Baluchistan. Still the traffic grew, and in 1902 steps were taken to check it through the instrumentality of the Governor of Kerman. As his authority was inconsiderable, in 1907 the Government began to see that the traffic had assumed proportions which could not be neglected. In the year 1907-08 the value of the arms imported into Maskat reached a total of £270,000, and it is estimated that between 1905 and 1911 no fewer than 200,000 rifles and millions of rounds of ammunition reached the Indian borderland through Maskat. In 1909 a rigorous blockade was instituted in the Persian Gulf and the Gulf of Oman.

#### France and Maskat.

The seat of trouble lay in the French commercial treaty with Maskat, and in the refusal of the French Government to abrogate it, except as the price of concessions in West Africa. Under this treaty arms were openly discharged at Maskat, and dumped down in the town, under the eyes of the British Consular officers and men of war. They were then shipped in dhows across to the Mekran coast by Arab dhows, and landed on the Persian shore. There Persian Baluch sirdars received them, and transported them to spots in the interior, where the Afghan caravans were waiting. These caravans were for the most part manned by Ghilzais, who transported the rifles right across Persia and Afghanistan to Kandahar, whence they were distributed throughout the frontier. It is impossible to gauge the extent or the trade, but thirty thousand rifles are reported to have been run to Kandahar in a single year and the supply became so plentiful that it was no longer worth while to steal rifles in India, nor to manufacture them in the Kohat Pass.

#### Naval Blockade.

Forced into indirect measures through the obstruction of France the Government instituted the naval blockade. For this purpose the ships of the East Indies Squadron were supplemented by a number of launches and boat cruisers, and a complete system of wireless telegraphy established. The Omani and Pirate coasts were watched by cruisers, and the departure of dhows was communicated by wireless to Jask, thence communicated to the boat

cruisers. These followed the dhows who slipped the cordon into shallow waters. Then at Robat, the northern frontier of British Baluchistan, a military post was established to intercept the caravans as they drew near Afghanistan.

#### Traffic Moribund.

C. The effect of these measures was so marked that it nearly precipitated a serious outbreak on the North-West Frontier. The Pathans who returned from Mekran Coast about the beginning of June 1910 reported that they had been unable to obtain rifles, because the British ships had put an end to the trade. At the same time cash in advance had been paid for these rifles and the money lay in the possession of the traders at Maskat. Between the rifles and the Mekran Coast, where they could be landed, was the seise of the British cordon. Excitement was rife, and only the exceptional tact of the British Officers prevented an *emeute*. Further preventive measures were taken to break up the power of Barkhat Khan, Governor of Biyaban, who had been the most indefatigable of the Baluch Sirdars engaged in the gun running traffic. A small force of Infantry was landed at Gallag on the Mekran Coast and marched "to show themselves" at Bint. Then re-embarking it made a second landing at Sirik at the mouth of the Gaz River and encountering the gun runners at the Pass of Pashak inflicted a sharp reverse upon them. Another episode characteristic of this traffic occurred at Debal on the Pirate Coast when a landing party from H.M.S. "Hyacinth," in December 1910 to search for rifles was actively opposed and five Bluejackets were killed and nine wounded. Under the threat of bombardment the Sheikh of Debal submitted to a heavy fine. In 1912, the traffic was brought under still closer control by an arrangement with the Sultan of Maskat by which all arms landed at that port are placed in a bonded warehouse and only issued on a certificate of destination. Even with this precaution the cordon is maintained and in 1913 there was a little brush with gun runners on the Tangistan Coast in which one Bluejacket was killed. The cost of these operations was £131,115 in 1912-13 and £166,700 (estimated) in 1913-14, borne by the Indian revenues.

Information from the Frontier, in August 1913, stated that no arms caravans had passed into Afghanistan, the traffic was moribund, and the price of rifles was rising.

### PERSIA AND SEISTAN.

The concentration of public attention on the Persian Gulf has been allowed to obscure the frontier importance of Seistan. Yet it has been a serious preoccupation with the Government of India. Seistan lies midway north and south between the point where the frontiers of Russia, Persia and Afghanistan meet at Zulfikar and that where the frontiers of Persia and of our Indian Empire meet on the open sea at Gwattur. It marches on its eastern border with Afghanistan and with Baluchistan, it commands the valley of the Helmand, and with it the road from Herat to Kandahar, and its immense resources as a wheat-producing region have been only partly developed under Persian misrule. It offers to an aggressive

Russia an admirable strategic base for future military operations; it is also midway athwart the track of the shortest line which could be built to connect the Trans-Caspian Railway with the Indian Ocean, and if and when the line from Askabad to Meshed were built, the temptation to extend it through Seistan would be strong. Whilst the gaze of the British was concentrated on the North-West Frontier, and to possible lines of advance through Kandahar to Quetta, and through Kabul to Peshawar, there can be little doubt that Russian attention was directed to a more leisurely movement through Seistan, if the day came when she moved her armies against India.

### Anglo-Russian Agreement.

Whether with this purpose or not, Russian intrigue was particularly active in Seistan in the early years of the century. Having Russianified Khorassan, her agents moved into Seistan, and through the agency of the Belgian Customs officials, "scientific missions" and an irritating plague cordon, sought to establish influence, and to stifle the British trade which was gradually being built up by way of Nushki. These efforts died down before the presence of the McMahon mission, which, in pursuance of Treaty rights, was demarcating the boundary between Persia and Afghanistan, with special reference to the distribution of the waters of the Helmand. They finally ceased with the conclusion of the Anglo-Russian Agreement. Since then the international importance of Seistan has waned. Whether on account of the Agreement, which bars the line of advance through Seistan, or because of the discovery of an easier route, we cannot determine, but Russian activities in railway construction have been diverted to the Trans-Persian route, which would take a direct line through Teheran from Baku, and meet the Arabian Sea at Bunder Abbas or Chahbar.

The natural conditions which give to Seistan this strategic importance persist. Meantime British influence is being consolidated through the Seistan trade route. The distance from Quetta to the Seistan border at Killa Robat is 465 miles, most of it dead level, and it has now been provided with fortified posts, dak bungalows, wells, and all facilities for caravan traffic. The railway has been pushed out from Spezand, on the Bolan Railway to Nushki, so as to provide a better starting point for the caravans than Quetta. The value of the trade carried over this route last year was Rs. 23,69,000.

### Text of the Agreement.

This Agreement, which aimed at an amicable settlement of all questions likely to disturb the friendly relations of the two countries in Asia generally, and in Persia, Afghanistan and Tibet in particular, was signed on August 31st, 1907, and officially communicated to the Powers in St. Petersburg on September 24. After reciting the desire of both Governments to maintain the integrity of Persia, and to allow all nations equal facilities for trade in that country, the Convention states that in certain parts, owing to their geographical proximity to their own territories, Great Britain and Russia have special interests. Accordingly (Art. I.): To the north of a line drawn from Kasr-i-Shirin, Isfahan, Yazd and Khakh to the junction of the Persian, Russian and Afghanistan frontiers, Great Britain agrees not to seek for itself or its own subjects or those of any other country any political or commercial concessions, such as railway, banking, telegraph, roads, transport or insurance, or to oppose the acquisition of such concessions by the Russian Government or its subjects. II. Russia gives a similar undertaking concerning the region to the south of a line extending from the Afghan frontier to Gazlik, Birjand, Kerman and Bandar Abbas. III. Russia and Great Britain agree not to oppose, without previous agreement, the granting of concessions to subjects of either country in the regions situated between the lines above

mentioned. All existing concessions in the regions above designated are maintained. IV. The arrangements by which certain Persian revenues were pledged for the payment of the loans contracted by the Shah's Government with the Persian Banque d'Escompte and de Prets and the Imperial Bank of Persia before the signing of the Convention are maintained. V. In the event of any irregularities in the redemption or service of these loans Russia may institute a control over the revenues situated within the zone defined by Article I. and Great Britain may do the same in the zone defined by Article II. But before instituting such a control the two Governments agree to a friendly exchange of ideas with a view to determining its nature, and avoiding any action in contravention of the principles of the Convention.

With the Convention a letter was published from Sir E. Grey to the British Ambassador at St. Petersburg announcing that the Persian Gulf lay outside its scope, but that the Russian Government had stated during the negotiations that it did not deny the special interests of Great Britain in the Gulf; and it was intimated that Great Britain reasserted them.

### Chaos in Persia.

So far from improving the domestic situation in Persia, the Convention precluded a condition of thinly disguised anarchy. There was little security for life or property outside the zone commanded by the Russian troops in the North, and in 1913, the Central India Horse, a solitary Indian Regiment sent to Shiraz, was withdrawn. A dismal picture of Persian disorder was drawn in the Persian Blue Book published in July, 1913. Lord Curzon, summarising it in a debate in the House of Lords on July 23 said:—"The picture delineated in this Blue-book of Southern Persia is a picture of a country in the throes of dissolution, given up to rapine and brigandage, where trade is at a standstill, where armed bands rove about the country doing as they please, where British officers are fired at and robbed, and in one particular unfortunate case an officer was killed; a country where the central Government is impotent and local government ignored. That is the picture of the country in the Blue-book up to February in the present year, and I believe, it is the description of the present state of affairs.

"In Northern Persia—and I must discriminate between Northern and Southern Persia—the conditions are very different. I do not say there is no insecurity, but life and property are relatively safe in Northern Persia, and this is owing to the presence of an overwhelming force of Russian troops in that part of the country. Now we have been told many times that the number of Russian troops would presently be reduced and the noble viscount (Lord Morley) made an impression in the course of debate by reading a categorical assurance, which he said the Russian Government desired to place on record, that such military measures as they were taking in Persia were of a purely provisional nature, and that they had no intention whatever of infringing the conditions of the Anglo-Russian Convention of 1907. 'That,' the noble viscount said, 'justifies us in framing our policy on the assumption that is theirs.'

That was read out to us in December 1911. At that time the Russian troops in Northern Persia numbered 3000; at present according to such information as we have, they number 17,500. The Blue-book mentions that not a single Russian soldier was withdrawn in the past year."

Lord Morley thus indicated the Government's policy. "I will put that common policy in seven propositions—(1) maintaining the spirit and the letter of the Anglo-Russian Convention; (2) maintaining the independence of Persia and avoidance of partition and an approach to partition, economical, administrative, geographical, political; (3) while faithful to the stability of our present alliance and to our real engagements we are faithful also in an equal degree to the good of Persia; (4) to uphold some form of constitutional Government; (5) to lose no chance of easing the distracted situation in which the Persian Government now is, by counsel, attention, and such assistance as from time to time we may consider it prudent to give; (6) to enable Persia by money or otherwise to restore order on the southern roads; (7)—this, I think, is

the language of the noble marquess sitting opposite (Lord Lansdowne)—to avoid entangling ourselves in a policy of adventure in Southern Persia. I am inclined to add an eighth proposition, namely, that we must beware of being forced into a position which would offend the opinion and sentiment of Mahomedans in India."

Broadly speaking, the policy of Great Britain is to support the Persian Government in an attempt to re-establish order on the Southern trade routes through the agency of a Persian gendarmerie organised by Swedish officers, and to make advances of money for this purpose. There was an improvement in the condition of the Southern trade routes during the year. The Regent returned to control affairs at Teheran.

*Consul General and Agent of the Government of India, Khorasan and Seistan:*—Major F. M. Sykes, C.I.E., C.M.G.

*Medical Officer, Seistan, and Offg. Consul,* Captain, D. Heron.

*Agency Surgeon, Meshed,* Captain, H. H. Thoburn, I.M.S.

## THE INDEPENDENT TERRITORY.

There yet remains a small part of British India where the King's writ does not run. Under what is called the Durand Agreement with the Amir of Afghanistan, the boundary between India and Afghanistan was settled, and it was delimited in 1903. But the Government of India have never occupied up to the border. Between the administered territory and the Durand line there lies a belt of territory of varying widths, extending from the Gomal Pass in the south, to Kashmir in the north; this is generically known as the Independent Territory. Its future is the keynote of the interminable discussions of frontier policy for nearly half a century.

This is a country of deep valleys and secluded glens, which nature has fenced in with almost inaccessible mountains. It is peopled with wild tribes of mysterious origin, in whom Afghan, Tartar, Turkoman, Persian, Indian, Arab and Jewish intermingle. They had lived their own lives for centuries, with little intercourse even amongst themselves, and as Sir Valentine Chirol truly said "the only bond that ever could unite them in common action was the bond of Islam." It is impossible to understand the Frontier problem unless two facts are steadily borne in mind. The strongest sentiment amongst these strange people is the desire to be left alone. They value their independence much more than their lives. The other factor is that the country does not suffice even in good years to maintain the population. They must find the means of subsistence outside, either in trade, by service in the Indian Army or in the Frontier Militia; or else in the outlet which hill-men all the world over have utilised from time immemorial, the raiding of the wealthier and more peaceful population of the Plains.

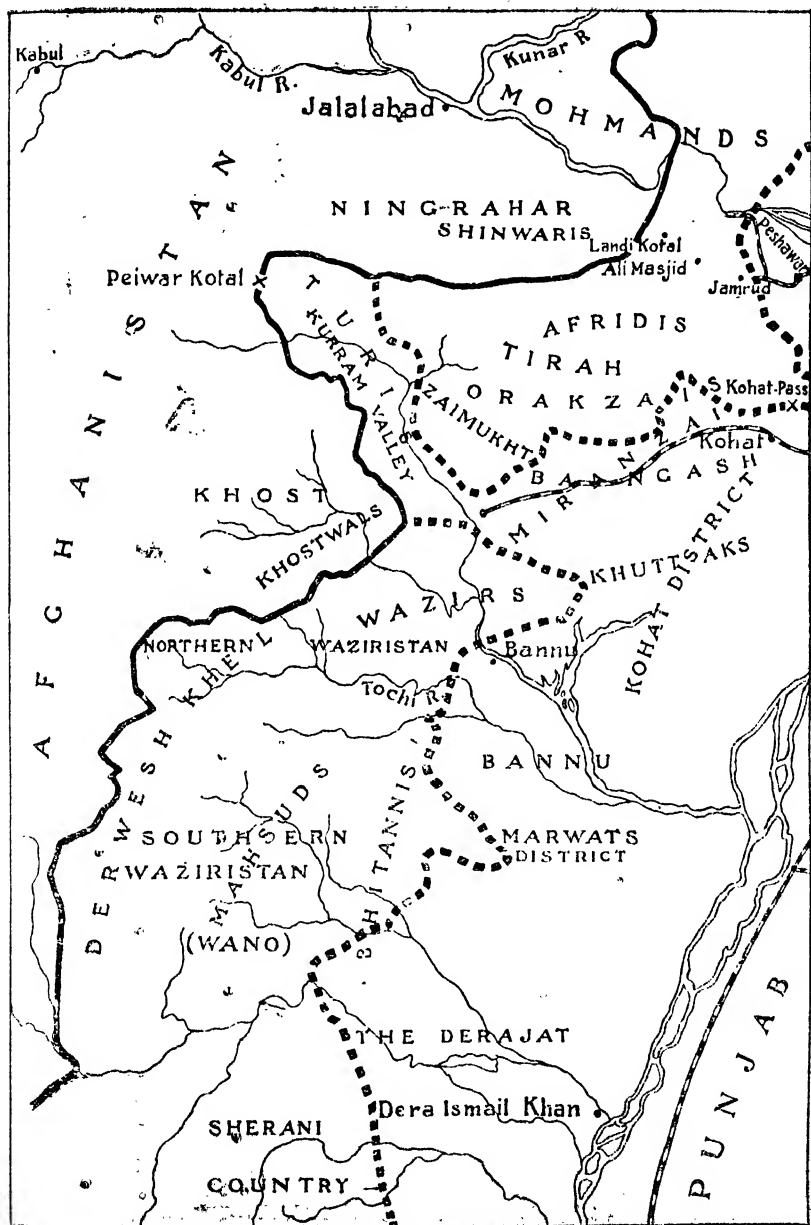
### Frontier Policy.

The policy of the Government of India toward the Independent Territory has ebbed and flowed in a remarkable degree. It has

fluctuated between the Forward School, which would occupy the frontier up to the confines of Afghanistan, and the school of Masterly Inactivity, which would leave the tribesmen entirely to their own resources, punishing them only when they raided British territory. Behind both the policies lay the menace of a Russian invasion, and that coloured our frontier policy until the Anglo-Russian Agreement. This induced what was called Hit and Retire tactics; in the half century which ended in 1897 there were nearly a score of punitive expeditions, each one of which left behind a legacy of distrust, and which brought no permanent improvement in its train. The fruit of the suspicion thus engendered was seen in 1897. Then the whole Frontier, from the Malakand to the Gomal, was ablaze. The extent of this rising and the magnitude of the military measures which were taken to meet it compelled a consideration of the whole position. The broad outlines of the new policy were laid down in a despatch from the Secretary of State for India, which prescribed for the Government the "limitation of your interference with the tribes, so as to avoid the extension of administrative control over tribal territory." It fell to Lord Curzon to give effect to this policy. The main foundations of his action were to exercise over the tribes the political influence requisite to secure our imperial interests, to pay them subsidies for the performance of specific duties, but to respect their tribal independence and leave them, as far as possible, free to govern themselves according to their own traditions and to follow their own inherited habits of life without let or hindrance.

### New Province.

As a first step Lord Curzon took the control of the tribes under the direct supervision of the Government of India. Up to this point they had been in charge of the Government of the Punjab, a province whose



head is busied with many other concerns. Lord Curzon created in 1901, the North-West Frontier Province, and placed it in charge of a Chief Commissioner with an intimate frontier experience, directly subordinate to the Government of India. This was a revival of a scheme prepared by Lord Lytton in 1877, and often considered afterwards, but which had slipped for lack of driving power. Next Lord Curzon withdrew the regular troops so far as possible from the advanced posts, and placed these fortalices in charge of tribal levies, officered by a handful of British officers. The most successful of these is the Khyber Rifles, which have steadfastly kept the peace of that historic Pass. At the same time the regular troops were cantoned in places whence they could quickly move to any danger point, and these bases were connected with the Indian Railway system. In pursuance of this policy frontier railways were run out to Dargal, and a narrow-gauge line, since converted to the broad-gauge, was constructed from Kushalgarh to Kohat at the entrance of the Kohat Pass, and to Thal at the mouth of the Kurram Valley. These railways are to be completed by lines to Tonk and Bannu. By this means the striking power of the regular forces was greatly increased. Nor was the policy of economic development neglected. The railways gave a powerful stimulus to trade, and the Lower Swat Canal converted fractious tribesmen into successful agriculturists. This policy of economic development is receiving a great development through the construction of the Upper Swat Canal (q. v. Irrigation) which is absorbing the whole labour force of the frontier. When it is completed there are other works awaiting attention.

#### Greater Peace.

So far this policy has been completely justified by results. During Lord Curzon's Viceroyalty there was no frontier expedition. The recalcitrancy of the Mahsud Waziris necessitated punitive measures, but they took the form of a blockade. Critics have declared that the blockade was scarcely distinguishable from an expedition, but that is a secondary matter. It was not until 1908 that the peace of the border was directly disturbed, and then the continued recalcitrancy of the Zakka Khel sept of the great Afridi tribe compelled the Government to take action. General Willcocks, moving swiftly down the Chura Pass, and Colonel Roos-Koppel taking the Khyber Rifles down the Bazar Valley inflicted such condign punishment on them that they were glad to accept terms of peace negotiated by the main Afridi tribe. A month later, action was necessary against the Mohmauds. In this case the rebellious tribesmen were actively supported by Afghan levies, assembled and fitted out in Afghan territory at Lalpura. Two brigades entered their country and defeated them. There was a diversion when lashkars numbering nearly twenty thousand moved up from Afghanistan and threatened the British post of Landi Kotal in the Khyber. They too were driven back into Afghan territory, and the trouble was at an end. The Amir, who had been strangely quiescent, asserted his authority and the irregular warfare waged from Afghan territory ceased.

#### Policy Justified.

These expeditions have been seized upon by critics to condemn the present policy. They justify it. Thanks to the confidence engendered by ten years of non-aggression, the disturbed area was localised, the Khyber was kept open, the Afridis lent their aid in concluding peace. For these reasons, when the Government of India proposed the occupation of further strategical points in order to control the Zakka Khels, the Secretary of State wisely imposed his embargo. The strength of the position was still further demonstrated when in 1910 the tribesmen suffered heavy losses in consequence of measures to suppress the arms traffic (q. v. Gun-running). The frontier is always in a state of suppressed ferment. No one knows what will happen to-morrow. But the tribesmen, feeling confident in the knowledge that no attack on their independence is contemplated and growing richer in consequence of the development of trade and agriculture, are more easily handled. With the removal of the Russian menace, or rather its transference to Persia, the importance of the North-West Frontier has tended to subside. There are still heard mutterings of the necessity for a reversion to the forward policy, and for the occupation of the Independent Territory right up to the Durand line. But they are not regarded seriously. The tribesmen are so saturated with rifles and ammunition, as the result of importations from the Persian Gulf, that the task would be long and costly. When it was achieved the frontier problem would only have shifted. Instead of a frontier against the Independent tribesmen, India would have a frontier against Afghanistan, and the problem would still be present, only in an aggravated form.

It was not without reason that the Moral and Material Progress Report of India for the decennium ended 1911-12 asserted that in general the last decade has been one of steady progress in the work of civilisation on the Frontier, and relations with the tribes have improved. The outlaw trouble has not been permanently settled, but allowing for these considerations the general outlook justifies the hope that pacification and civilisation will make good progress.

As for the nomenclature of the Frontier tribes, the term Pathan is not racial. It is used to denote status, and is generally used of the Frontier tribes and their connections. Furthest to the South, on the borders between the North-West Frontier Province and Baluchistan, are found the Shiranis, who are an Afghan people. Waziristan is inhabited by the Waziris, who have two main branches, the Mahsud Waziris, found in Southern Waziristan, and the Darwesh Khel Waziris, mostly in Northern Waziristan. The latter have two main sections, the Utmanzai and the Ahmadzai, and these again are subdivided into numerous clans. In the Kurram the Turis (who unlike their neighbours are Shlahs) form the strongest element. In the Khyber region the main tribes are the Orakzai and the Afridis, both found in the mountainous country south of the Khyber Pass commonly called Tirah; both are extensively subdivided, the strongest sections

of the Orakzai being the Lashkarzai and the Masozai, and of the Afridis the Malik Bin Khel, the Zakka Khel, the Kambhar Khel and the Kuki Khel. Between the Khyber Pass and the Kabul River are the Mullagoris, and further

south the Mohmands and the Utman Khel. Beyond these are the Yusufzai, who form the bulk of the inhabitants of Swat and Dir. Chitral is inhabited by races whose origin is obscure.

## AFGHANISTAN.

The relations of Afghanistan with the Indian Empire are dominated by one main consideration—the relation of Afghanistan to a Russian invasion of India. All other considerations are of secondary importance. For nearly three-quarters of a century the attitude of Great Britain toward successive Amirs has been dictated by this one factor. It was in order to prevent Afghanistan from coming under the influence of Russia that the first Afghan War of 1838 was fought—the most melancholy episode in Indian frontier history. It was because a Russian envoy was received at Kabul whilst the British representative was turned back at All Masjid that the Afghan War of 1878 was waged. Since then the whole end of British policy toward Afghanistan has been to build up a strong independent State, friendly to Britain, which would act as a buffer against Russia, and so to order our frontier policy that we should be in a position to move large forces up, if necessary, to support the Afghans in resisting aggression.

### Gates to India.

A knowledge of the trans-frontier geography of India brought home to her administrators the conviction that there were only two main gates to India—through Afghanistan, the historic route to India, along which successive invasions have poured, and by way of Seistan. It has been the purpose of British policy to close them, and of Russian endeavour to keep them at any rate half open. To this end having pushed her trans-Persian railway to Samarkand, Russia thrust a military line from Merv to the Kushkinsky Post, where railway material is collected for its immediate prolongation to Herat. Later, she connected the trans-Siberian railway with the trans-Caucasian system, by the Orenburg-Tashkent line, thus bringing Central Asia into direct touch with her European magazines. She was, until recently, credited with the determination to build the *Termes* railway, which would menace north-east Afghanistan just as the Kushkinsky line does north-west Afghanistan. Nor has Great Britain been idle. A great military station has been created at Quetta. This is connected with the Indian railway system by lines of railway which climb to the Quetta Plateau by the Bolan Pass and through the Chapper Rift, lines which rank amongst the most picturesque and daring in the world. From Quetta the line has been carried by the Khojak tunnel through the Khwaja Amran Range, until it leads out to the Afghan Border at New Chaman, where it opens on the route to Kandahar. The material is stocked at New Chaman which would enable the line to be carried to Kandahar in sixty days. In view of the same menace the whole of Baluchistan has been brought under British control. Quetta is now one of the great strategical positions of the world, and nothing has been left undone which modern military science can achieve to

add to its natural strength. In the opinion of many military authorities it firmly closes the western gate to India, either by way of Kandahar, or the direct route through Seistan.

Further east the Indian railway system has been carried to Jamrud, at the entrance to the Khyber Pass. A first class military road, sometimes double, sometimes treble, threads the Pass to our advanced post at Landi Kotal, and then descends until it meets the Afghan frontier at Tor Khum. Later, a commencement was made with the Lol Shilman Railway, which, starting from Peshawar, was designed to penetrate the Mullagori country and provide an alternative advance to the Khyber for the movement of British troops for the defence of Kabul. For unexplained reasons, this line was suddenly stopped and is now thrust in the air. In this wise the two Powers prepared for the great conflict which was to be fought on the Kandahar-Ghazni-Kabul line.

### Relations with India.

Between the advanced posts on either side stands the Kingdom of Afghanistan. The end of British policy has been to make it strong and friendly. In the first particular it has largely succeeded. When the late Abdurrahman was invited to ascend the throne, as the only means of escape from the tangle of 1879, none realised his great qualities. Previously the Amir of Afghanistan had been the chief of a confederacy of clans. Abdurrahman made himself master in his own kingdom. By means into which it is not well closely to enter, he beat down opposition until none dared lift a hand against him. Aided by a British subsidy of twelve lakhs of rupees a year, increased to eighteen by the Durand Agreement of 1893, he established a strong standing army and set up arsenals under foreign supervision to furnish it with arms and ammunition. Step by step his position was regularised. The Anglo-Russian Boundary Commission,—which nearly precipitated war over the *Penjeh* episode in 1885,—determined the northern boundaries. The *Pamirs* Agreement delimited the borders amid those snowy heights. The Durand Agreement settled the border on the British side. Finally the McMahon award closed the old feud with Persia over the distribution of the waters of the Helmand in Seistan. It was estimated by competent authorities that about the time of Abdurrahman's death, Afghanistan was in a position to place in the field, in the event of war, one hundred thousand well-armed regular and irregular troops, together with two hundred thousand tribal levies, and to leave fifty thousand regulars and irregulars and a hundred thousand levies to maintain order in Kabul and the provinces. But if Afghanistan were made strong, it was not made friendly. Abdurrahman Khan distrusted British policy up to the day of his death. All that can be said is that he distrusted it less than he distrusted Russia, and

if the occasion had arisen for him to make a choice, he would have opposed a Russian advance with all the force at his disposal. He closed his country absolutely against all foreigners, except those who were necessary for the supervision of his arsenals and factories. He refused to accept a British Resident, on the ground that he could not protect him, and British affairs have been entrusted to an Indian agent, who is in a most equivocal position. At the same time he repeatedly pressed for the right to pass by the Government of India and to establish his own representative at the Court of St. James.

#### Position To-day.

It used to be one of the commonplaces of Indian discussion that the system which Abdurrahman Khan had set up would perish with him, because none other was capable of maintaining it. Abdurrahman Khan died in 1901. His favourite son, Habibullah, who had been gradually initiated into the administration, peacefully succeeded him, and has since peacefully retained his seat on the throne. He concluded in 1905 the Dane Treaty, by which he accepted the same obligations on the same terms as his father. He visited India in 1907, and apparently both enjoyed and profited by his experiences. Since then the purdah which screens Afghanistan has been lifted so little that there is no definite knowledge of what has passed behind it. It would however be impossible to describe the attitude of the Amir as friendly. It is said that the honours bestowed upon him in India, especially the conferring of a Royal Title, increased the megalomania from which all Afghans suffer. He bitterly resented the conclusion of the Anglo-Russian Agreement, without any prior reference to himself, and has never given his adhesion to it over. His attitude toward the Frontier disturbances of 1907-08 was peculiar. There is no doubt that the Zakkā Khel rising was stirred by refugees in Kabul. Thousands of Afghans, equipped in Afghan territory, participated in the Mohmand campaign. The great lashkar which attacked Landi Kotal was entirely composed of Afghans. The most favourable interpretation placed on his conduct is that during his absence in India, followed by a long tour in the northern provinces, the situation in Afghanistan had got out of hand, and the Amir let it take its course until failure occurred, when he stepped in and assumed control of affairs. For the rest, the position of the ruler of Afghanistan is not an enviable one. His brother, Nasrullah Khan,

a noted Anglophobe and reactionary, is the Commander-in-Chief of the Army and the head of the orthodox party. The administration of the country is extremely lax. Experiences in Khost indicate that the strength of the central power has been exaggerated. In 1912, the Mangals of Khost revolted against an unpopular governor and besieged him in his own stronghold. There was much talk of the prompt and severe punishment of the rebels, but the troops never reached the valley and the rebels were bought off by the dismissal of the unpopular governor.

#### Anglo-Russian Agreement.

Inasmuch as Afghan politics, in their relation to Great Britain, were determined by the Russian menace, they have receded with the conclusion of the Anglo-Russian Agreement. The part of the Anglo-Russian Convention relating to Afghanistan is as follows: I. The British Government disclaims any intention of changing the political position in Afghanistan, and undertakes neither to take measures in Afghanistan, nor to encourage Afghanistan to take measures, threatening Russia. The Russian Government recognises Afghanistan as outside the Russian sphere of influence, and agrees to act in all political relations with Afghanistan through the British Government, and it also undertakes to send no agents to Afghanistan. II. Great Britain adheres to the provisions of the treaty of Kabul of March 21, 1905, and undertakes not to annex or to occupy, contrary to the said treaty, any part of Afghanistan, or to intervene in the internal administration. The reservation is made that the Amir shall fulfil the engagements contracted by him in the aforementioned treaty. III. Russian and Afghan officials especially appointed for that purpose on the frontier, or in the frontier provinces, may enter into direct relations in order to settle local questions of a non-political character. IV. Russia and Great Britain declare that they recognise the principle of equality of treatment for commerce and agree that all facilities acquired already or in the future for British and Anglo-Indian commerce and merchants shall be equally applied to Russian Commerce and merchants. V. These arrangements are not to come into force until Great Britain has notified to Russia the Amir's assent to them.

The Amir has never given his adhesion to the Agreement; but Great Britain and Russia have agreed to regard the Agreement as if the Amir had accepted it.

#### TIBET.

Recent British policy in Tibet is really another phase in the long-drawn-out duel between Great Britain and Russia in Central Asia. The earliest efforts to establish communication with that country were not, of course, inspired by this apprehension. When in 1774 Warren Hastings despatched Bogle on a mission to the Tashi-Lama of Shigatse,—the spiritual equal, if not superior, of the Dalai Lama of Lhasa,—his desire was to establish facilities for trade, to open up friendly relations with a Power which was giving us trouble on the frontier, and gradually to pave the way to a good un-

derstanding between the two countries. After Warren Hastings's departure from India the subject slept, and the last Englishman to visit Lhasa, until the Younghusband Expedition of 1904, was the unofficial Manning. In 1885, under the inspiration of Colman Macaulay, of the Bengal Civil Service, a further attempt was made to get into touch with the Tibetans, but it was abandoned in deference to the opposition of the Chinese, whose suzerainty over Tibet was recognised, and to whose views, until the war with Japan, British statesmen were inclined to pay excessive deference. But

the position on the Tibetan frontier continued to be most unsatisfactory. The Tibetans were aggressive and obstructive, and with a view to putting an end to an intolerable situation, a Convention was negotiated between Great Britain and China in 1890. This laid down the boundary between Sikkim and Tibet, it admitted a British protectorate over Sikkim, and paved the way for arrangements for the conduct of trade across the Sikkim-Tibet frontier. These supplementary arrangements provided for the opening of a trade mart at Yatung, on the Tibetan side of the frontier, to which British subjects should have the right of free access, and where there should be no restrictions on trade. The agreement proved useless in practice, because the Tibetans refused to recognise it, and despite their established suzerainty, the Chinese Government were unable to secure respect for it.

### Russian Intervention.

This was the position when in 1899 Lord Curzon, Viceroy of India, endeavoured to get into direct touch with the Tibetan authorities. Three letters which he addressed to the Dalai Lama were returned unopened, at a time when the Dalai Lama was in direct intercourse with the Tsar of Russia. His emissary was a Siberian Dorjoff, who had established a remarkable ascendancy in the counsels of the Dalai Lama. After a few years' residence at Lhasa Dorjoff went to Russia on a confidential mission in 1899. At the end of 1900 he returned to Russia at the head of a Tibetan mission, of which the head was officially described in Russia as "the senior Tsanite Khomba attached to the Dalai Lama of Tibet." This mission arrived at Odessa in October 1900, and was received in audience by the Tsar at Livadia. Dorjoff returned to Lhasa to report progress, and in 1901 was at St. Petersburg with a Tibetan mission, where as bearers of an autograph letter from the Dalai Lama they were received by the Tsar at Peterhoff. They were escorted home through Central Asia by a Russian force to which several Intelligence Officers were attached. At the time it was rumoured that Dorjoff had, on behalf of the Dalai Lama, concluded a treaty with Russia, which virtually placed Tibet under the protectorate of Russia. This rumour was afterwards officially contradicted by the Russian Government.

### The Expedition of 1904.

In view of these conditions the Government of India, treating the idea of Chinese suzerainty over Tibet as a constitutional fiction, proposed in 1903 to despatch a mission, with an armed escort, to Lhasa to discuss the outstanding questions with the Tibetan authorities on the spot. To this the Home Government could not assent, but agreed, in conjunction with the Chinese Government, to a joint meeting at Khamba Jong, on the Tibetan side of the frontier. Sir Francis Younghusband was the British representative, but after months of delay it was ascertained that the Tibetans had no intention of committing themselves. It was therefore agreed that the mission, with a strong escort, should move to Gyantse. On the way the Tibetans developed marked hostility, and there was fighting at Tuna, and several

sharp encounters in and around Gyantse. It was therefore decided that the mission should advance to Lhasa, and on August 3rd, 1904 Lhasa was reached. There Sir Francis Younghusband negotiated a convention by which the Tibetans agreed to respect the Chinese Convention of 1890; to open trade marts at Gyantse, Gartok and Yatung; to pay an indemnity of £500,000 (seventy-five lakhs of rupees); the British to remain in occupation of the Chumbi Valley until this indemnity was paid off at the rate of a lakh of rupees a year. In a separate instrument the Tibetans agreed that the British Trade Agent at Gyantse should have the right to proceed to Lhasa to discuss commercial questions, if necessary.

### Home Government intervenes.

For reasons which were not apparent at the time, but which have since been made clearer, the Home Government were unable to accept the full terms of this agreement. The indemnity was reduced from seventy-five lakhs of rupees to twenty-five lakhs, to be paid off in three years, and the occupation of the Chumbi Valley was reduced to that period. The right to despatch the British Trade Agent to Lhasa was withdrawn. Two years later (June 1906) a Convention was concluded between Great Britain and China regulating the position in Tibet. Under this Convention Great Britain agreed neither to annex Tibetan territory, nor to interfere in the internal administration of Tibet. China undertook not to permit any other foreign State to interfere with the territory or internal administration of Tibet. Great Britain was empowered to lay down telegraph lines to connect the trade stations with India, and it was provided that the provisions of the Convention of 1890, and the Trade Regulations of 1893, remained in force. The Chinese Government paid the indemnity in three years and the Chumbi Valley was evacuated. The only direct result of the Mission was the opening of the three trade marts and the establishment of a British Trade Agent at Gyantse.

### The Anglo-Russian Agreement.

The reason underlying the action of the British Government in modifying, in such material particulars, the Convention of Lhasa was apparent later. The Anglo-Russian Agreement was in process of negotiation, and under that Agreement Great Britain was pledging herself not to annex any portion of Tibetan territory, nor to send a representative to Lhasa. A seventy-five year occupation of the Chumbi Valley would have been indistinguishable from annexation. The portions of the Anglo-Russian Agreement which relate to Tibet are as follows.

Article I.—The two High Contracting Parties engage to respect the territorial integrity of Tibet and to abstain from all interference in its internal administration.

Article II.—In accordance with the admitted principle of the suzerainty of China over Tibet, Great Britain and Russia engage not to enter into negotiations with Tibet, except through the intermediary of the Chinese Government. This engagement does not exclude the direct relations between the British Commercial Agents and the Tibetan authorities, provided for in Article V of the Convention between



Great Britain and Tibet of the 7th September, 1904, and confirmed by the Convention between Great Britain and China of the 27th April 1908; nor does it modify the engagements entered into by Great Britain and China in Article I of the said Convention of 1906.

It is clearly understood that Buddhists, subjects of Great Britain or of Russia, may enter into direct relations on strictly religious matters with the Dalai Lama, and the other representatives of Buddhism in Tibet; the Governments of Great Britain and Russia engage, as far as they are concerned, not to allow those relations to infringe the stipulations of the present arrangement.

Article III.—The British and Russian Governments, respectively, engage not to send Representatives to Lhasa.

Article IV.—The two High Contracting Parties engage neither to seek nor to obtain, whether for themselves or for their subjects, any concessions for railways, roads, telegraphs, and mines, or other rights in Tibet.

Article V.—The two Governments agree that no part of the revenues of Tibet, whether in kind or in cash, shall be pledged or assigned to Great Britain or Russia or to any of their subjects.

Annexed to the Agreement was a re-affirmation of the declaration for the evacuation of the Chumbi Valley after the payment of three annual instalments of the indemnity, provided that the trade marts had been effectively opened for three years and that the Tibetans had complied in all respects with the terms of the Treaty.

### Chinese Action.

The sequel to the Anglo-Russian Agreement was dramatic, it might be said, ought not to have been unexpected. On the approach of the Younghusband Mission the Dalai Lama fled to Urga, the sacred city of the Buddhists in Mongolia. He left the internal government of Tibet in confusion, and one of Sir Francis Younghusband's great difficulties was to find Tibetan officials who would undertake the responsibility of signing the Treaty. Now the suzerainty of China over Tibet had been explicitly reaffirmed. It was asserted that she would be held responsible for the foreign relations of Tibet. In the past this suzerainty having been a "constitutional fiction", it was inevitable that China should take steps to see that she had the power to make her will respected at Lhasa. To this end she proceeded to convert Tibet from a vassal state into a province of China. In 1908 Chao Erh-feng, acting Viceroy in the neighbouring province of Szechuen, was appointed Resident in Tibet. He proceeded gradually to establish his authority, marching through eastern Tibet and treating the people with great severity. Meantime the Dalai Lama, finding his presence at Urga, the seat of another Buddhist Pontiff, irksome, had taken refuge in Si-ning. Thence he proceeded to Peking, where he arrived in 1908, was received by the Court, and despatched to resume his duties at Lhasa. Moving by leisurely stages, he arrived there at Christmas 1909. But it was soon apparent that the ideas of the Dalai Lama and of the Chinese Government had little in common. The Dalai Lama expected to resume the temporal and spiritual

despotism which he had exercised prior to 1904. The Chinese intended to deprive him of all temporal power and preserve him as a spiritual pope. The Tibetans had already been exasperated by the pressure of the Chinese soldiery. The report that a strong Chinese force was moving on Lhasa so alarmed the Dalai Lama that he fled from Lhasa, and by the irony of fate sought a refuge in India. He was chased to the frontier by Chinese troops, and took up his abode in Darjeeling, whilst Chinese troops overran Tibet.

### Later Stages.

The British Government, acting on the representations of the Government of India, made strong protests to China against this action. They pointed out that Great Britain, while disclaiming any desire to interfere with the internal administration of Tibet, could not be indifferent to disturbances in the peace of a country which was a neighbour, on intimate terms with other neighbouring States on our frontier, especially with Nepal, and pressed that an effective Tibetan Government be maintained. The attitude of the Chinese Government was that no more troops had been sent to Tibet than were necessary for the preservation of order, that China had no intention of converting Tibet into a province, but that being responsible for the good conduct of Tibet, she must be in a position to see that her wishes were respected by the Tibetans. Finally, the Chinese remarked that the Dalai Lama was such an impossible person that they had been compelled again to depose him. Here the matter might have rested, but for the revolution in China. That revolution broke out in Szechuen, and one of the first victims was Chao Erh-feng. Cut off from all support from China, surrounded by a hostile and infuriated populace, the Chinese troops in Tibet were in a hopeless case; they surrendered, and sought escape not through China, but through India, by way of Darjeeling and Calcutta. The Dalai Lama returned to Lhasa, and in 1913, in the House of Lords on July 28, Lord Morley stated the policy of the British Government in relation to these changes. He said the declaration of the President of the Chinese Republic saying that Tibet came within the sphere of Chinese internal administration; and that Tibet was to be regarded as on an equal footing with other provinces of China, was met by a very vigorous protest from the British Government. The Chinese Government subsequently accepted the principle that China is to have no right of active intervention in the internal administration of Tibet, and agreed to the constitution of a conference to discuss the relation of the three countries. This Convention met at Simla when Sir Henry McMahon, Foreign Secretary to the Government of India; Mr. Ivan Chen, representing China; and Mr. Long Chen Shatra, Prime Minister to the Dalai Lama, threshed out these issues.

### Political Importance of Tibet.

The political importance of Tibet in relation to India has of necessity been changed by the Anglo-Russian Agreement. So long as that instrument is in force, it tends to decline. But no treaties are everlasting. The question has

been admirably summed up by Sir Valentine Chirol ("The Middle Eastern Question"). Written before the Agreement was reached. "What it would be impossible to view without some concern" he wrote "would be the ascendance of a foreign and possibly hostile power at Lhasa, controlling the policy of a great politico-religious organisation whose influence can and does make itself appreciably felt all along the north-eastern borderland of India. Lhasa is the stronghold of Lamaistic Buddhism, a debased form of Buddhism largely overgrown with tantric philosophy. Lhasa is in fact the Rome of Central Asian Buddhism, and the many-storied Po-ta-la on the hill to the west of the city is its Vatican, whence its influence radiates throughout innumerable lamaseries or Buddhist monasteries, not only into Turkestan and Mongolia and Western China, but across the Himalayas into the frontier States of our

Indian Empire. Corrupt and degraded as it is, it is still unquestionably a power, and just because it is corrupt and degraded it might lend itself more readily to become for a consideration the tool of Russian ambitions. . . . Tibet as a Russian dependency would, at any rate, no longer be a *quantite negligible*, and our north-eastern frontier, naturally formidable as it is, would require to be watched, just as every civilised country has to watch its frontiers, whatever they may be, where they march with a powerful neighbour, and most of all in India, where our frontier is fringed with semi-independent Native States, over which our authority is conditioned mainly on the hitherto unrivalled prestige of our Imperial power in Asia."

British Trade Agent, Yatung.—D. Macdonald.

British Trade Agent, Gyantse.—B. J. Gould;  
I. C. S.

### THE NORTH-EASTERN FRONTIER.

The position on the northern frontier has been considered as if the British line were contiguous with that of Tibet. This is not so. The real frontier States are Kashmir, Nepal, Sikkim and Bhutan. From Chitral to Gilgit, now the northernmost posts of the Indian Government, to Assam, with the exception of the small wedge between Kashmir and Nepal, where the British district of Kumaon is thrust right up to the confines of Tibet, for a distance of nearly fifteen hundred miles there is a narrow strip of native territory between British India and the true frontier. The first of these frontier States is Kashmir. The characteristics of this State are considered under Native States (q.v.); it is the most only important Native State in India with frontier responsibilities, and it worthily discharges them through the agency of its efficient Imperial Service troops—four regiments of Infantry and two Mountain Batteries, composed mainly of the Rajput Dogras, who make excellent fighting material. One of the most important trade routes with Tibet passes through Kashmir—that through Ladak. Then we come to the long narrow strip of Nepal. This Gurkha State stands in special relations with the British Government. It is for all practical purposes independent, and the British resident at Kathmandu exercises no influence on the internal administration. The governing machine in Nepal is also peculiar. The Maharaj Dhiraj, who comes from the Sesodia Rajput clan, the bluest blood in India, takes no part in the administration. All power vests in the Prime Minister, who occupies a place equivalent to that of the Mayors of the Palace, or the Shoguns of Japan. The present Prime Minister, Sir Chandra Shamsher, has visited England, and has given conspicuous evidence of his attachment to the British Government. Nepal is the main Indian outpost against Tibet, or against Chinese aggression through Tibet. The friction between the Chinese and the Nepalese used to be frequent, and in the eighteenth century the Chinese marched an army to the confines of Khatmandu—one of the most remarkable military achievements in the history of Asia. Under the firm rule of the present Prime Minister Nepal has been largely free from internal disturbance, and has been raised to a strong bulwark of India. Nepal is the recruit-

ing ground for the Gurkha Infantry, who form such a splendid part of the fighting arm of the Indian Empire. Beyond Nepal are the smaller States of BHUTAN and SIKKIM, whose rulers are Mongolian by extraction and Buddhists by religion. In view of Chinese aggressions in Tibet, the Government of India in 1910 strengthened their relations with Bhutan by increasing their subsidy from fifty thousand to a lakh of rupees a year, and taking a guarantee that Bhutan would be guided by them in its foreign relations. Afterwards China had officially notified that Great Britain would protect the rights and interests of these States.

#### Assam and Burma.

We then come to the Assam border tribes—the Dailas, the Miris, the Abors and the Mishmis. Excepting the Abors none of these tribes have recently given trouble. In March 1911 the Abors murdered Mr. Williamson, Assistant Political Officer at Sadiya, and Dr. Gregorson, who were visiting their country at the invitation of several headmen. A punitive column was sent against the Abors in October 1911, and the murderers were punished. At the same time friendly missions were sent to the Mishmi and Miri countries. Close contact with these forest-clad and tree-infested hills has not encouraged any desire to establish more intimate relations with them. The area occupied by the Nagas runs northwards from Manipur. The Nagas are a Tibeto-Burman people, devoted to the practice of head hunting, which is still vigorously prosecuted by the independent tribes. The Chin hills is a tract of mountainous country to the south of Manipur. The corner of India from the Assam boundary to the northern boundary of the Shan States is for the most part included in the Myitkyna and Bhamo districts of Burma. Over the greater part of this area, a labyrinth of hills in the north, no direct administrative control is at present exercised. It is peopled by the Shans and the Kachins. Civilisation is said to be progressing and steps have been taken to prevent encroachments from the Chinese side. There is a considerable trade with China through Bhamo. On the Eastern frontier of Burma are the Shan States, with an area of fifty thou-

sand square miles and a population of 1,300,000. These States are still administered by the Sawbwas, or hereditary chiefs, subject to the guidance of Superintendents and Assistant Superintendents. The Northern Shan Railway to Lashio, opened in 1903, was meant to be a stage in the construction of a direct railway link with China, but this idea has been put aside, for it is seen that there can never be a

trade which would justify the heavy expenditure. The Southern Shan States are to be developed by railway connection. The five Karenni States lie on the frontier south of the Shan States. South of Karenni the frontier runs between Siam and the Tonasserin Division of Burma. The relations between the Indian Government and the progressive kingdom of Siam are excellent.

### PERSIAN DEBT TO BRITAIN.

A Parliamentary Paper sets out the outstanding debt of the Persian Government to the British and Indian Governments, as follows:

	£	s.	d.
Portion of Anglo-Indian Loan of 1903-4 (repayable by March, 1928) .....	314,281	15	4
Anglo-Indian advance of February, 1912 .....	100,000	0	0
Anglo-Indian advance of Aug. 1912, after defeat of gendarmerie in Fars .....	25,000	0	0
Anglo-Indian advance of Nov. 1912, for use of Governor-General of Fars .....	15,000	0	0

	£	s.	d.
Anglo-Indian advance of April, 1913, for general purposes of administration, including £30,000 for such purposes in Fars and £10,000 for the Beshire Custom House .....	200,000	0	0
Anglo-Indian advance of May, 1913, for gendarmerie purposes in Fars .....	100,000	0	0

Total.....£754,281 16 4

The 1903-5 loan bears interest at 5 per cent., and all other advances bear interest at 7 per cent.

(For Trade of the Persian Gulf &c.)

## Railways to India.

The prospect of linking Europe and Asia by a railway running eastwards through Asia Minor has fascinated men's minds for generations. The plans suggested have, owing to the British connection with India, always lain in the direction of lines approaching India. More than 40 years ago a Select Committee of the House of Commons sat for two years to consider the question of a Euphrates Valley railway. The Shah of Persia applied to the British Foreign Office for the investment of British capital in Persian railway construction many years before the end of the nineteenth century. A proposal was put forward in 1895 for a line of 1,000 miles from Cairo and Port Said to Koweit, at the head of the Persian Gulf. While these projects were in the air, German enterprise stepped in and made a small beginning by constructing the Anatolian railway system. Its lines start from Scutari, on the southern shore of the Bosphorus, opposite Constantinople, and serve the extreme western end of Asia Minor. And upon this foundation was based the Turkish concession to Germans to build the Baghdad Railway.

Meanwhile, Russia was pushing her railways from various directions into the Central Asian territory running along the northern frontiers of Persia and Afghanistan to the borders of Chinese Turkestan. The advance of the Russian railheads was regarded with extreme suspicion in England as part of a scheme of adventure against India, and as the Russian lines crept southwards British Indian railways were thrust forward to the Indian north-west frontier. As the two systems approached one another, enthusiasts adumbrated plans for linking them together. M. de Lesseps, the creator of the Suez Canal, made a journey to Bombay to lay one before the Indian Government. He was proposing to start homewards through Afghanistan and Central Asia, so that he might examine a route that way, and *via* Orenburg to Moscow, when the Afghan wars broke out and ended the dream.

The construction of a Trans-Persian railway, connecting India across Persia, with the Russian lines between the Black Sea and the Caspian Sea has come to the forefront since the conclusion of the Anglo-Russian agreement regarding Persia, and simultaneously with this and the advance of the Baghdad railway old projects for British lines running inland into Persia from the Persian Gulf have been quickened.

The actual position in regard to these various undertakings is:—

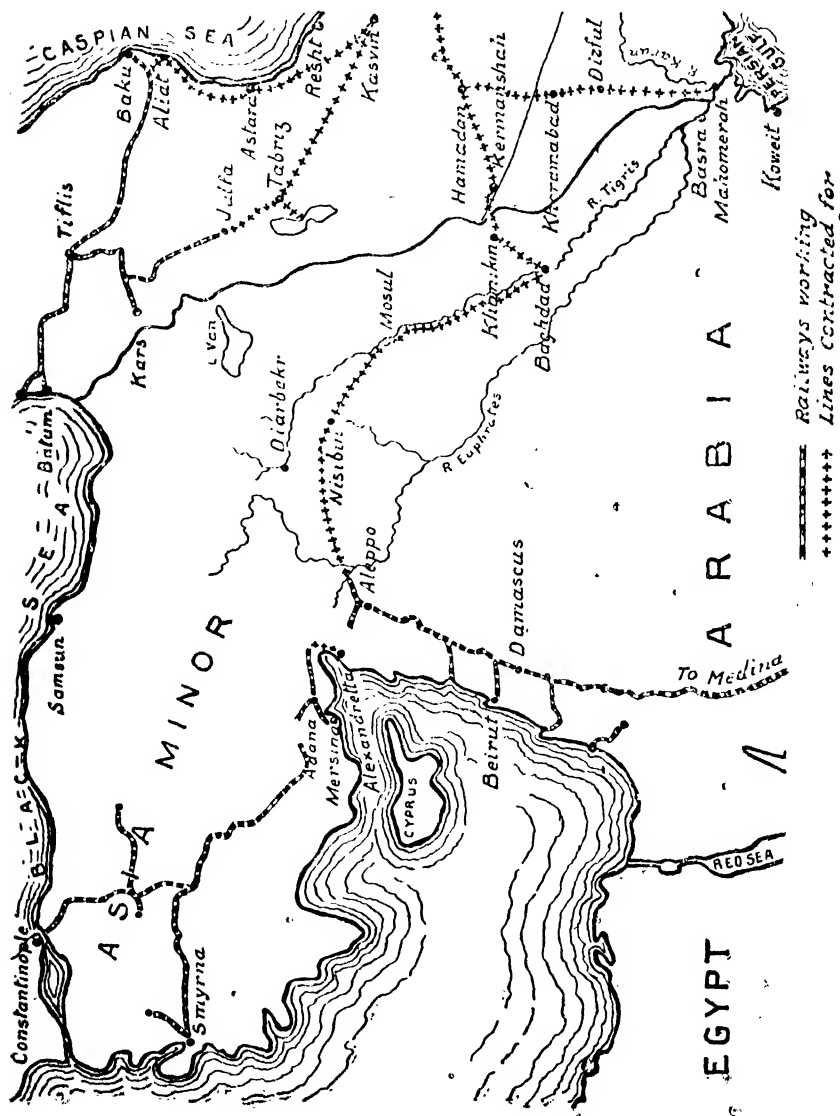
### Baghdad Railway.

The German group holding the Anatolian railway concession was granted, in 1902, a further concession for extending that system from Konia, then its southern terminus, through the Taurus range to the extreme eastern Mediterranean seaboard, and by way of Nisibin, Mosul and Baghdad to Basra. This concession was substituted for a line projected by a more northerly route through the pass of Diarbekr. Russia strongly objected to that route, on the ground that it would bring the line into the Black Sea basin. When it was abandoned,

a Russo-Turkish agreement was passed, reserving to Russia the sole right to construct railways in the northern part of Asia Minor, and Russia has since then prepared a number of projects for that region, branching out from Samsun, on the Black Sea. Russia has also prepared her Caucasian railways for possible extensions in the same region, pushing her lines towards Van and making an agreement with Persia, in February, 1913, for a line to Lake Urumia.

The Anatolian railway company were apparently unable to handle their new concession and initiated fresh negotiations, which resulted in the Baghdad Railway convention of March, 1903. This caused much discussion in England, owing to the apparent intention of the Germans to encroach on the Persian Gulf. Attempts were made by the German group to secure the participation of France and Britain in the undertaking. They were successful in France, the Imperial Ottoman Bank group agreeing to take 30 per cent. of the finance, without, however, the countenance of the French Government. But in England, though Mr. Balfour's Government was favourable, strong objection was taken to the constitution of the Board of Directors, which established German control in perpetuity. It was regarded as a German political move and participation was rejected.

The financial terms, with a Turkish kilometric guarantee, were highly favourable to the company. Thus, the outside cost of construction of the first section, which lies entirely in the plains of Konia, is estimated to have been £625,000, and the company retained a profit of at least 1½ millions sterling on this part of their enterprise. In the second section the Taurus range is being encountered and construction is more difficult and more costly. The railway must for a long time be a heavy burden on Turkish finance. The country through which it passes from the Mediterranean seaboard to the Tigris valley above Baghdad holds out little or no prospect of commercial advantage, and the financial system adopted offers no inducement to the concessionaires to work for increasing earnings. Thus, the Baghdad railway company sublet the working of the line to the Anatolian Railway Company at a rate of £148 per kilometre, as against £180 per kilometre guaranteed by the Turkish Government. The weight of the Turkish obligations in connection with the railway had an important effect upon the discussions, in Paris in the summer of 1913, of the international committee for the examination of questions relating to the Ottoman debt. The committee was appointed in reference to the financial settlement between Turkey and the Balkan States after the war and it became evident that for some Powers, whatever the deserts of the Balkan Allies might be, the Baghdad railway and Turkey's ability to pay the guarantee upon it were the one fixed point to be guarded in the Ottoman Empire. Important negotiations took place between Germany and France, in 1913, to regulate their respective financial positions in regard to the railway, so as to avoid future conflict of poli-



tical interests in the regions of the Baghdad lines and the French railway system in Syria.

The Baghdad Railway was by last summer advanced southward from Konia 182 miles, to Karapınar, on the northern slope of the Taurus. On the southern side of the mountains, the Mersina-Adana line had been incorporated and 16 miles of track constructed, from Adana to Dorak among the southern foothills of the Taurus. Work is now in progress to link up Karapınar and Dorak. The distance between them through the mountains, is 56 miles. The limestone mountain gorges involve much tunnel work and it is believed that the work will occupy three years.

Eastward from Adana, construction advanced about 65 miles, by the middle of 1913, towards the head of the French Syrian lines at Aleppo, and work was begun on a short branch line connecting this new piece with Alexandretta. Plans were submitted to the Turkish Government for the construction of a new port at Alexandretta, in accordance with the terms of a supplementary concession sanctioning the branch line. These include the construction of three docks, a feature of considerable interest. Work was begun early last year on a line running north-west from Aleppo to meet that coming from Adana. It will have to pierce the Amanus range of hills by a tunnel three miles long, which will take three years to construct.

Progress has meanwhile been made with the early stages of the line running north-east from Aleppo en route to Baghdad. This line is open to Jerablus, on the Euphrates, and operations are in hand for the construction of a large bridge at that spot, while motor boats and a steamer or two have been taken in pieces to Jerablus and launched for river traffic to Baghdad. The journey from Beirut to Baghdad was thus reduced to 8½ days, counting two days from Beirut to Jerablus by train, six days by steamer to Feluja, and, finally, 10 hours' carriage drive to Baghdad. The river traffic is likely to be interrupted in the dry season. Earthwork is in progress eastward from Jerablus, and construction has been commenced on the Baghdad-Mosul section, material for the latter being taken up-river from Basra to Baghdad by special barges and tugs. Reckoning all the sections completed and open for traffic, a distance of 397½ miles had been finished by the summer of 1913, out of a total of 1,020 miles, reckoning from Konia to Baghdad.

A satisfactory agreement has been reached between Britain and Turkey, with the acquiescence of Germany, regarding the approach to the Persian Gulf. Its central provision is that the railway shall not proceed beyond Basra without an agreement with Britain and Britain is to make no agreement that it shall proceed beyond Basra. Britain waives any question of her participation in the Baghdad-Basra section of the line. It is agreed that there are to be no differential rates on the railway, and in regard to the latter Britain asked for the right of appointing two directors of the railway, not for purposes of control but to guard British interests. Britain recognises Turkish suzerainty over Koweit and Turkey recognises the independence of the Sheikh of Koweit

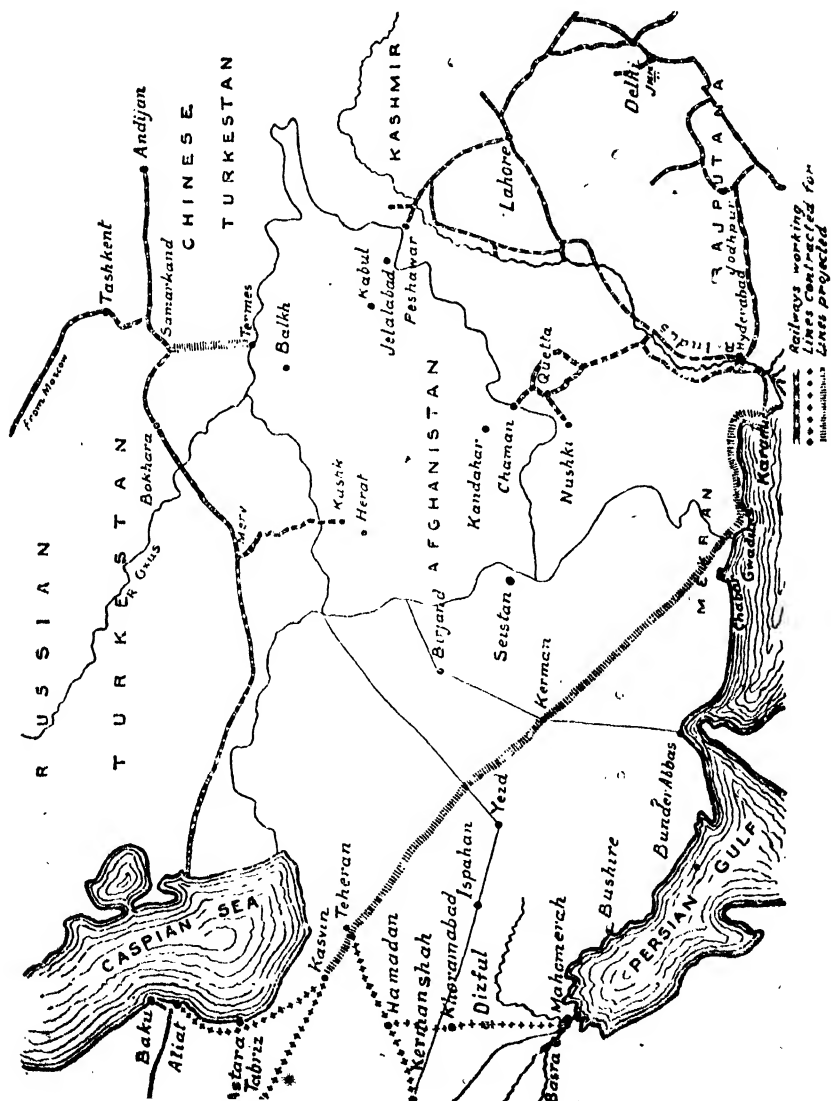
and the continuance, unimpaired, of the present relationship between him and the British Government.

Germany also proposes to build a line from Baghdad to Khanikin where a pass through the mountains leads into the West Persian high-lands. Russia has agreed to build a railway from Khanikin, *via* Kermanshah and Hamadan to Teheran, construction to begin within two years of the completion of the extension from Baghdad to Khanikin and then to be completed in 4 years.

### Trans-Persian Line.

A trans-Persian line to join the Russian Caucasian system with the Indian Railways first assumed proportions of practical importance in the late winter of 1911. Both the Russian and the Indian railways are fully developed up to the points which would be the termini of a trans-Persian line. The Russian railway system reaches Julfa on the Russo-Persian border between the Black Sea and the Caspian Sea. A line connecting with this runs from Batum, on the east coast of the Black Sea, to Baku on the west coast of the Caspian. Incidentally, article 59 of the Treaty of Berlin provides that Batum shall be "a free port essentially commercial". The Persian Foreign Minister on February 8, 1913, signed a concession to the Russian Julfa-Tabriz and Enzeli-Teheran Road Companies, giving the right to construct a railway from Julfa to Tabriz with an extension to Lake Urmiah and a preferential right to build a railway from Tabriz to Kazvin. Julfa and Tabriz are at present equipped with a metalled road, on which a motor omnibus service is maintained. The road is the property of the concessionaire company and if, as seems likely, sections of it can be utilised for railway construction the work of constructing the line will be materially expedited. The railway is to be begun within two years of the granting of the concession and completed within six years and a time limit of eight years is fixed for the extension of the line from Tabriz to Kazvin, a further distance of 250 miles. The concession runs for a period of seventy-five years. Option is reserved to the Persian Government to purchase the Julfa-Tabriz line after a lapse of 35 years. The Russian Government Department of Railways in June last approved the concession to Russian Syndicate for the construction of the line from a point on the railway close to Baku to Astara, a point on the Caspian south-western seaboard, where the Russian and Persian territories meet. More than one possible starting point for trans-Persian Railway is therefore in course of preparation.

On the Indian side, the railway system is fully developed up to Baluchistan, close to the Persian frontier. A broad gauge line running through Quetta to Nushki was constructed with the intention of its development for the benefit of trade which already runs by caravan along the "Nushki trade route" to the Persian province of Seistan. The Russian Government favoured linking up the trans-Persian railway with the Indian railways at this point. But the suspicious saw a strategic reason for this preference. The Indian Government found itself unable to approve the connection. They insist that the line shall



run either from Yezd or Kerman to the seaboard. This condition is absolute. There remains, then, a connection with the Indian North-Western Railway at or near Karachi.

The necessary financial arrangements for the preliminary work in connection with the proposal, which came from Russia, to connect the railways with Russia and India were completed in January, 1912. It was then stated that the Russian Committee were already in possession of a nearly complete survey of more than 300 miles from Astara to Teheran and the length of the line from there to Gwadar on the Perso-Baluch Frontier is some 1,200 miles. Soon after this announcement, Mr. Johns was appointed by the Government of India to survey a railway route between Karachi and Gwadar, and found a good line with a general gradient of 1 in 250, the steepest being 1 in 90. Twelve of the principal Russian Banks were interested in the project and the desired amount of English and French capital was guaranteed, one English banking house having even offered to furnish the whole of the English quota. The French concerns are the Banque de Paris et des Pays Bas, the Credit Lyonnais, the Societe Generale, the Comptoir National, the Banque de l'Union Parisienne and Count d'Arnaux.

Meetings of the international financiers concerned in the scheme were held and a *Societe d'Etudes* was formed. M. G. Raindri, formerly a distinguished member of the French diplomatic service, was selected as President, with Sir William Garstin as British Vice-President and M. Homiakoff, ex-President of the Russian Duma, as Russian Vice-President. The Society consists of a council of administration of 24 persons. The Governments of all three countries gave their approval to the enterprise and on the firm representations of the British Foreign Office a formal memorandum was drawn up providing for absolute equality of British, Russian and French control in the undertaking. It has been agreed that in the northern half Russian interest shall be 60 per cent., French interest 33 1-3 per cent, and British 6 2-3 per cent.; and in the southern half Russian interest 6 2-3 per cent., French 33 1-3 per cent., and British 60 per cent. The total interests of the parties in the whole line will thus be equal. The French and Russian proposal was that interests should be equal for the whole line. The above arrangement was made to meet British susceptibilities.

No announcement has yet been made of the settlement of further details in regard to the line. Its general route will presumably be from Astara *via* Teheran to Kerman or Yezd, and thence to either Bunder Abbas, at the entrance of the Persian Gulf, or Chabar, a point on the Mekran Coast, about 100 miles west of Gwadar. As to the cost, £18,700,000 was the amount first declared by Russian experts as sufficient to cover the cost of construction and provision of rolling-stock for the 1,400 miles of railway in Persian territory. English experts then believed that £15,000,000 would be sufficient. Further investigation has, led competent experts on the English side to say that the capital involved must eventually total £30,000,000 at least. The line presents no great engineering difficulties, but there would

be a great variety of gradients throughout its length, the line will rise at several points to some thousands of feet above sea-level, and numerous detours will be necessary both for gradients and to serve local needs.

### Central Asian Lines.

There remains the possibility of linking up the Russian and Indian railway systems by way of Afghanistan. But many strategical objections have been raised to the trans-Persian railway and these considerations are strengthened tenfold in regard to bringing the Russian Central Asian lines nearer Kabul. Russia has in recent years considerably increased her railway facilities in Central Asia. The line from Krasnavodsk on the East Caspian shore now extends, *via* Merv and Bokhara and Samarkhand, to Andijan, which is some 350 miles north-west of Kashgar, the important town of Chinese Turkestan. The great network of railways in European Russia is also now directly connected by the Orenburg line with Tashkent, and a connecting line links it up with the southern railway just described. From Merv a line runs south to Kushk, on the Afghan border, within a few miles of Herat. It is reported that Russia intends building another line extending the Orenburg-Tashkent connection to Termez, a point on the Oxus 50 miles or less from Balkh, which, again, is close to the important strategical point, Mazar-i-Sharif. It is doubtful whether in a race, Russia, starting from Termez, or Britain, starting from the Khyber, could reach Kabul first. Termez, where, it is stated, Russia proposes to throw a bridge across the Oxus, is the highest point at which that river is navigable from the Aral Sea. The suggestion has often seriously been made in recent years that the Russian line from Merv to Herat should be linked to the Indian line which from Quetta proceeds to the Afghan border at Chaman. The distance between the two railheads is about 520 miles.

### Persian Gulf Lines.

Britain's special interests in regard to Persian railways are primarily associated with lines running inland from the Persian Gulf, to supersede the old camel routes. Special importance has for many years been attached to schemes for a railway from Mohammerah (at the opening of the Karun Valley, where the Karun River runs into the Shat-el-Arab, just above Basra, near the Turkish border,) northwards into the rich highland country of Western Persia. Britain has long established special relations with the Karun Valley and has a large trade there. An agreement was reached between the Persian Government and the representative of a British Syndicate in February, 1913, for the construction of a railway from Mohammerah to Khoramabad, in the interior. Persia offered the syndicate a two years' option, during which period the route of the line was to be surveyed. The Persian Government undertook to decide, on the completion of the survey, whether it would build the railway as a State line under contract with the Syndicate, or whether it would grant the Syndicate a concession for the construction of the line. The Syndicate immediately began preliminary operations. Four



English engineers were sent out, and exactly two months after the agreement was announced they proceeded to Dizful, on the route of the line, for the purpose of making preliminary surveys. The Syndicate is composed of six groups, of which four are already connected with Persian commerce, *viz.*, the Anglo-Persian Oil Company, the Imperial Bank, the Euphrates and Tigris Steam Navigation Company (Messrs. Lynch), and the British India Steam Navigation Company. The Syndicate is prepared to undertake much more extensive railway construction in Southern Persia. As Russia will eventually build a line from Teheran to Khanikin, the Khoramabad line will probably be linked with this line, at Hamadan or elsewhere, and Persia will thus have two routes from the Gulf to the north.

#### Period of Transit.

It is commonly said that the Trans-Persian railway would bring India within eight days

of London. The possibility was demonstrated by the performance of a party who travelled from London to Persia last year and sent the following details of their journey to the *Times*. The party left London by the 8.35 p.m. train on a Saturday and arrived at Baku at 10.20 p.m. (London time, say, 7.30 p.m.) on the following Thursday, and at Enzell, on the south-west shore of the Caspian, (reached by steamer from Baku), at 6 a.m. on the following Saturday,—that is, within six and a half days from London. They travelled *via* Folkestone, Flushing, Berlin, Warsaw, Snamenka, Rostoff and Beslan, and were detained at Warsaw some ten hours and at other points a full 12 hours more, thus reducing the actual travelling to 5½ days, which was a "record." There remained, at the end of their journey, only the trans-Persian stage, which it is hoped to cover by the new line, so that an express service from London to Delhi ought to be easily possible within the eight days.

# Foreign Consular Officers in India.

Name.	Appointment.	Port.
<b>Argentine Republic.</b>		
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Mr. F. C. Danger .. ..	Do. .. ..	Do.
Mr. C. W. Rhodes .. ..	Vice-Consul .. ..	Do.
<b>Austria-Hungary.</b>		
Dr. F. Freyleben .. ..	Consul-General .. ..	Calcutta.
Mr. W. R. Czerwenka .. ..	Do. .. ..	Do.
Count Egon von Thurn and Valsassina .. ..	Consul .. ..	Bombay.
Mr. A. Platt .. ..	Do. .. ..	Do.
Vacant .. ..	Do. .. ..	Aden.
Mr. B. Seiner .. ..	Do. .. ..	Madras.
Herr H. Schrader .. ..	Do. .. ..	Rangoon.
Mr. W. U. Nicholas .. ..	Do. .. ..	Karachi.
Mr. C. S. Anderson .. ..	Vice-Consul .. ..	Do.
Herr E. Vogelsang .. ..	Do. .. ..	Aden
<b>Belgium.</b>		
Mons. M. Cuvelier .. ..	Consul .. ..	Bombay.
Mr. G. Stadler .. ..	Do. .. ..	Calcutta.
Mr. J. H. Fyfe .. ..	Do. .. ..	Karachi.
Mr. E. S. Murray .. ..	Do. .. ..	Aden.
Mr. A. H. Deane .. ..	Do. .. ..	Madras.
Mr. W. Macdonald .. ..	Do. .. ..	Rangoon.
Mr. R. A. Scott .. ..	Do. .. ..	Akyab.
Mr. J. Lince .. ..	Vice-Consul .. ..	Calcutta.
Mons Lucien Combe .. ..	Do. .. ..	Bombay.
<b>Bolivia.</b>		
Kumar Shyama Kumar Tagore .. ..	Consul-General .. ..	Calcutta.
<b>Brazil.</b>		
Mr. Joakim D. S. Nahapiet .. ..	Consul .. ..	Calcutta.
Mr. T. A. DeSouza .. ..	Do. .. ..	Do.
Mr. J. Zuberbuhler .. ..	Vice-Consul .. ..	Bombay.
Mr. Martin Cohen .. ..	Commercial Agent .. ..	Do.
Mr. J. B. Halliday .. ..	Vice-Consul .. ..	Rangoon.
Mr. J. F. Brown .. ..	Commercial Agent .. ..	Do.
<b>Chile.</b>		
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Mr. H. H. C. Smidt .. ..	Vice-Consul .. ..	Bombay.
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Senhor L. Grommers .. ..	Do. .. ..	Calcutta.
Mr. A. R. Leshman .. ..	Do. .. ..	Chittagong.
Mr. C. Kauffeld .. ..	Do. .. ..	Rangoon.
<b>Ghina.</b>		
Mr. Hsiao Yung Hsi .. ..	Consul .. ..	Rangoon.
<b>Costa Rica.</b>		
Kumar Shyama Kumar Tagore .. ..	Consul .. ..	Calcutta.
<b>Cuba.</b>		
Mr. J. Zuberbuhler .. ..	Honorary Consul .. ..	Bombay.
Mr. C. Hummel .. ..	Do. .. ..	Do.
Vacant .. ..	Do. .. ..	Calcutta.

Name.	Appointment.	Post.
<b>Denmark.</b>		
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Vacant .. .. .	Consul .. .. .	Bombay.
Mr. E. S. Murray .. .. .	Do. .. .. .	Aden.
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Mr. I. F. Jensen .. .. .	Do. .. .. .	Rangoon.
Mr. H. Curjel .. .. .	Vice-Consul .. .. .	Karachi.
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Mr. S. G. L. Eustace .. .. .	Do. .. .. .	Calcutta.
Mr. P. T. Christensen .. .. .	Do. .. .. .	Moulmein.
<b>Ecuador.</b>		
Kumar Shyama Kumar Tagore .. .. .	Consul .. .. .	Calcutta.
<b>France.</b>		
Mons. A. E. Roussin .. .. .	Consul-General .. .. .	Calcutta.
Mons. R. T. Jucritte .. .. .	Vice-Consul .. .. .	Do.
Mons. G. Barret .. .. .	Consul .. .. .	Bombay.
Mons. M. Ries .. .. .	Consular Agent .. .. .	Aden.
Mr. T. L. F. Beaumont .. .. .	Do. .. .. .	Karachi.
Mr. F. E. J. Worke .. .. .	Do. .. .. .	Madras.
Mr. J. L. Brown .. .. .	Do. .. .. .	Chittagong
Vacant .. .. .	Do. .. .. .	Rangoon.
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Mr. J. LePaucheur .. .. .	Do. .. .. .	Coconada.
Mr. J. Fernel .. .. .	Do. .. .. .	Tellicherry.
Mr. F. Bordes .. .. .	Do. .. .. .	Do.
<b>Germany.</b>		
Count Karl Von Luxemburg .. .. .	Consul-General .. .. .	Calcutta.
Baron E. von Rosen .. .. .	Attached to the Consulate-General.	Do.
Mr. H. R. Schuler .. .. .	Consul .. .. .	Do.
Herr F. Heyer .. .. .	Do. .. .. .	Bombay.
Herr E. Neuenhofer .. .. .	Do. .. .. .	Karachi.
Herr H. Vogelsang .. .. .	Do. .. .. .	Aden.
Mr. Max Miersch .. .. .	Do. .. .. .	Madras.
Mr. Fritz Gosling .. .. .	Commercial Agent .. .. .	Calcutta.
Mr. E. J. Foucar .. .. .	Consul .. .. .	Moulmein.
Herr Leo Ulrich .. .. .	Do. .. .. .	Akyab.
Mr. Carl Kauffeld .. .. .	Do. .. .. .	Rangoon.
Herr Fritz Feez .. .. .	Do. .. .. .	Basseln.
Mr. Adolf Bucler .. .. .	Do. .. .. .	Cochin.
Herr H. Baechtold .. .. .	Do. .. .. .	Do.
<b>Greece.</b>		
Mr. E. Apostolides .. .. .	Consul .. .. .	Calcutta.
<b>Gautemala.</b>		
Mr. H. J. Sanders .. .. .	Consul .. .. .	Calcutta.
<b>Italy.</b>		
Cavaliere Giuseppe Saint Martin .. .. .	Consul-General .. .. .	Calcutta.
Cav. L. Zunini .. .. .	Do. .. .. .	Aden.
Cav. Dr. G. Gorio .. .. .	Consul .. .. .	Bombay.
Mr. J. Mekle .. .. .	Do. .. .. .	Rangoon.
Vacant .. .. .	Honorary Vice-Consul .. .. .	Calcutta.
Signor Galcomio Bettoni .. .. .	Vice-Consul .. .. .	Bombay.
Mr. Gordon Fraser .. .. .	Consular Agent .. .. .	Madras.
Vacant .. .. .	Do. .. .. .	Moulmein.
Vacant .. .. .	Do. .. .. .	Akyab.
Mr. H. J. Guy, R.N.R. .. .. .	Do. .. .. .	Basseln.
<b>Japan.</b>		
Mr. Kametaro Tijiima Shorokui .. .. .	Consul-General .. .. .	Calcutta.
Mr. Y. Shibata .. .. .	Do. .. .. .	Do.
Mr. Kazuwo Iwasaki .. .. .	Consul .. .. .	Bombay.

# Foreign Consular Officers in India.

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Name.	Appointment.	Port.
<b>Liberia.</b>		
Dr. E. F. Underwood .. ..	Consul .. ..	Bombay.
Dr. Benode Behari Banerjee .. ..	Do. .. ..	Calcutta.
<b>Mexico.</b>		
Mr. R. L. B. Gall .. ..	Consul .. ..	Calcutta.
<b>Netherlands.</b>		
Mons. J. Barendrecht .. ..	Consul-General .. ..	Calcutta.
Mons. L. Grommers .. ..	Consul .. ..	Do.
Mons. J. G. Bendien .. ..	Do. .. ..	Bombay.
Mr. W. Grimm .. ..	Do. .. ..	Do.
Mr. T. L. F. Beaumont .. ..	Do. .. ..	Karachi.
Mr. C. E. L. Kappelhoff, Jr. .. ..	Do. .. ..	Aden.
Mr. R. A. Scott .. ..	Do. .. ..	Akyab.
Mr. W. Massink .. ..	Do. .. ..	Rangoon.
Mr. J. V. Crussha .. ..	Do. .. ..	Madras.
Mons. L. Grommers .. ..	Vice-Consul .. ..	Calcutta.
<b>Norway.</b>		
Mr. H. J. Sanders .. ..	Consul-General .. ..	Calcutta.
Mr. F. E. Hardcastle .. ..	Consul .. ..	Bombay.
Mr. W. Meek .. ..	Do. .. ..	Aden.
Sir H. S. Fraser, Kt. .. ..	Do. .. ..	Madras.
Mr. J. E. Simpson .. ..	Do. .. ..	Do.
Mr. H. A. Rees .. ..	Do. .. ..	Rangoon.
Mr. G. J. Smidt .. ..	Vice-Consul .. ..	Calcutta.
Mr. S. G. Ritherdon .. ..	Do. .. ..	Chittagong.
Mr. S. Lucas .. ..	Do. .. ..	Do.
Mr. A. Gardiner .. ..	Vice-Consul .. ..	Cocanada.
Mr. D. Miller .. ..	Do. .. ..	Tuticorin.
Mr. E. G. Moylan .. ..	Do. .. ..	Akyab.
Mr. J. Anderson .. ..	Do. .. ..	Bassam.
Mr. J. McCracken .. ..	Do. .. ..	Do.
Mr. J. J. Shaw .. ..	Do. .. ..	Moulmein.
Mr. E. F. B. Wyatt .. ..	Do. .. ..	Karachi.
<b>Persia.</b>		
Mirza Sir Davood Khan Meftahos-Saltaneh, K. C. M. G. .. ..	Consul-General .. ..	Calcutta.
Mirza Ali Akbar Khan, B.A., Barrister-at-Law. .. ..	Consul .. ..	Bombay.
Khan Bahadur Haji Mirza Shujaut Ali Beg .. ..	Do. .. ..	Calcutta.
Hadj Mirza Mehdi .. ..	Do. .. ..	Madras.
Mirza Ali Akbar Khan, B.A., Barrister-at-Law. .. ..	Vice-Consul .. ..	Bombay.
Kumar Shyama Kumar Tagore .. ..	Vice-Consul-General .. ..	Calcutta.
Vacant .. ..	Vice-Consul .. ..	Karachi.
Aga Mahmood .. ..	Do. .. ..	Rangoon.
Vacant .. ..	Do. .. ..	Moulmein.
<b>Peru.</b>		
Mr. W. Smidt .. ..	Consul .. ..	Rangoon.
Mr. J. B. Strain .. ..	Do. .. ..	Calcutta.
<b>Portugal.</b>		
Senhor A. Cassanova .. ..	Consul-General .. ..	Bombay.
Vacant .. ..	Consul .. ..	Do.
Mr. Hormusji Cowasji Dinshaw .. ..	Do. .. ..	Aden.
Mr. R. D. Dinshaw .. ..	Do. .. ..	Do.
Dr. E. M. deSouza .. ..	Do. .. ..	Rangoon.
Senhor F. daCunha Pinto .. ..	Vice-Consul .. ..	Bombay.
Mr. W. D. Young .. ..	Do. .. ..	Karachi.
Mr. J. Short .. ..	Do. .. ..	Madras.
Mons. C. Jambon .. ..	Do. .. ..	Calcutta.
Mons. A. Goguet Chapuis .. ..	Do. .. ..	Do.
<b>Russia.</b>		
Mons. C. Nabokoff .. ..	Consul-General .. ..	Calcutta.
Mons. M. Ries .. ..	Vice-Consul .. ..	Aden.
Mons. Vsevolod Ampenow .. ..	Do. .. ..	Calcutta.
Mr. J. Bodalline .. ..	Do. .. ..	Do.

Name.	Appointment.	Post.
<b>Siam.</b>		
Vacant.	Consul	Calcutta.
Mr. B. J. B. Stephens	Do.	Rangoon.
Mr. A. H. Russell	Do.	Moulmein.
Mr. C. Van-der-Gucht	Do.	Do.
<b>Spain.</b>		
Don J. Meana Y. Martinez	Consul	Bombay.
Vacant	Do.	Calcutta.
Mons. L. Grezoux	Vice-Consul	Do.
Mr. L. Lesdos	Do.	Do.
Mons. M. Rles	Do.	Aden.
Mr. G. D. Coleman	Do.	Madras.
Mr. W. Archibald	Do.	Rangoon.
<b>Sweden.</b>		
Mr. W. L. Wanklyn	Consul-General	Calcutta.
Mr. Andrew Yule	Do.	Do.
Mr. E. R. Logan	Consul	Madras.
Mr. L. Volkart	Do.	Bombay
Mr. J. Muller	Do.	Do.
Mr. A. E. Adams	Do.	Aden.
Mr. E. T. Hicks	Do.	Rangoon.
Mr. T. H. Wheeler	Vice-Consul	Calcutta.
Vacant	Do.	Moulmein.
<b>Turkey.</b>		
Haji Haid Bey	Consul-General	Bombay.
Haji Muhammad Abdul Aziz Badshah Sahib	Consul	Madras.
Haji Muhammad Youssouf Ismail Sahib Effendi.	Do.	Rangoon.
<b>United States of America.</b>		
Mr. W. H. Michael	Consul-General	Calcutta.
Mr. C. B. Perry	Vice and Deputy Consul-General.	Do.
Mr. H. D. Baker	Consul	Bombay.
Mr. W. H. Schulz	Do.	Aden.
Mr. S. K. Lupton	Do.	Karachi.
Mr. Jose de Olivares	Do.	Madras.
Mr. Maxwell K. Moorhead	Do.	Rangoon.
Mr. Selby S. Coleman	Vice and Deputy Consul	Bombay.
Mr. E. L. Rogers	Do.	Karachi.
Mr. H. B. Osborn	Do.	Rangoon.
Mr. K. H. Scott	Do.	Madras.
Mr. P. Nalin	Do.	Aden.
Mr. W. E. Bell	Consular Agent	Chittagong.
Mr. C. F. Roth	Do.	Cochin.
Vacant	Do.	Bassein.
Mr. D. Robertson	Do.	Do.
Mr. C. J. McNeill	Do.	Moulmein.
Mr. W. O. Orr	Do.	Akyab.
<b>Uruguay.</b>		
Mons. C. Jambon	Consul	Calcutta.

## The Army in India.

The great sepoy army of India originated in the small establishments of guards, known as peons, enrolled for the protection of the factories of the East India Company; but sepoys were first enlisted and disciplined by the French, who appeared in India in 1665. Before this, detachments of soldiers were sent from England to Bombay, and as early as 1625 the first fortified position was occupied by the East India Company at Armagon, near Masulipatam. Madras was acquired in 1640, but in 1654 the garrison of Fort St. George consisted of only ten men. In 1661 Bombay was occupied by 400 soldiers, four years before the French appeared in India. In 1668 the garrison of Bombay consisted of 285 men, of whom only 93 were English, the remainder being French, Portuguese and natives.

While the origin of the regular sepoy army is usually dated from 1748, when Stringer Lawrence, "the father of the Indian Army," enrolled an Indian force in Madras, it is interesting to note that there was a considerable military establishment in Bombay prior to that date. In 1741 this establishment, which was considered as one regiment, consisted of a captain, nine lieutenants, fifteen ensigns, a surgeon, two sergeant-majors, 82 sergeants, 82 corporals, 26 drummers, and 319 European privates, together with 31 "masters" (probably Eurasians) and 900 topasses—presumably Goanese. These were distributed in seven companies, their total monthly pay being 10,314 rupees. There was in addition a kind of native militia, composed of 700 sepoys including native officers. These were maintained at a monthly cost of 312 rupees. They were not equipped or dressed in a uniform manner, but supplied their own weapons—swords and shields, bows and arrows, pikes, lances or matchlocks. After the declaration of war with France in 1744, the forces at Bombay were considerably increased, and an artillery company was raised. Already in 1740 the French at Pondicherry had raised a large force of Mussalman soldiers, armed and equipped in the European fashion; and the fall of Madras, which the French captured in 1746, induced the English East India Company to begin the formation of a military establishment of like nature. In January 1748 Major Stringer Lawrence landed at Fort St. David to command the forces of the Company. The English foothold in India was then precarious. The French under Dupleix were contemplating further attacks; and it became necessary for the English Company to form a larger military establishment. The new commandant at once set about the organisation and discipline of his small force. The garrison was organised in seven companies; and the peons, or factory guards, were also formed into companies. This was the beginning of the regular Indian Army, of which Lawrence eventually became Commander-in-Chief. In Madras the European companies developed into the 1st Madras Fusiliers; similar companies in Bombay and Bengal became the 1st Bombay and 1st Bengal Fusiliers. The native infantry was similarly developed and organised by Lawrence and Clive, who was his contemporary, and military adventurers—both Mussalman and Hindu—

readily took service under the East India Company. By degrees Royal Regiments were sent to India, the first being the 39th Foot, which arrived in 1754.

### Struggle with the French.

From this time for a century or more the Army of India was engaged in constant war. After a prolonged struggle with the French, whom Dupleix had by 1750 raised to the position of the leading power in India, the efforts of Stringer Lawrence, Clive and Eyre Coote completed the downfall of their rivals, and the power of England was established by the battle of Plassey in Bengal and on the field of Wandewash in Southern India. In 1761 the final overthrow of the French was completed, and the territories of that enterprising people were reduced to a few settlements on the coast, the principal of which, Pondicherry, was captured in 1793. But while the Army of India had accomplished this much, they had now to contend with the great native powers, both Illudu and Mahomedan. A number of independent states had arisen on the decline of the Mughal Empire, some ruled by the satraps of the Emperor of Delhi and others by the Mahratta princes who had succeeded to and extended the conquests of Sivaji; while in Mysore Hyder Ali, a Mussalman adventurer, had established himself in the place of the Hindu Raja. A great and prolonged struggle took place with the ruler of Mysore, in which the forces of the Crown and the Company's Army bore a distinguished part. This struggle extended over nearly twenty years, and terminated only with the death of Hyder's son and successor Tipu when his capital of Seringapatam was taken by assault in 1799.

### Presidency Armies.

The extension of British territory had necessitated a corresponding augmentation in the strength of the armies of Bengal, Madras and Bombay, which were entirely separate organisations, as rendered requisite by the great distances and independent territories by which they were separated. But Bengal and Bombay troops had taken part in the wars in Southern India, although the brunt of the fighting had fallen on the Madras Army. These armies had grown both in strength and efficiency. In 1787 the Governor-General, Lord Cornwallis, wrote to the Duke of York—"A brigade of our sepoys would make anybody emperor of Hindustan. The appearance of the native troops gave me the greatest satisfaction; some of the battalions were perfectly well-trained, and there was a spirit of emulation among the officers, and an attention in the men, which leaves me but little room to doubt that they will soon be brought to a great pitch of discipline."

### Reorganisation of 1796.

In 1796, when the native armies were reorganised, the European troops were about 13,000 strong; the native troops numbered some 57,000, the infantry being generally formed into regiments of two battalions each. In Bengal native infantry regiments were formed by linking existing battalions. The establishment of each two-battalion regiment was 1 colonel commandant, 2 lieutenant-colonels, 2 majors, 5 captains;

22 Lieutenants, 10 ensigns, 2 European non-commissioned officers, 40 native officers, 200 native non-commissioned officers, 40 drummers and fifers, 1,600 sepoys. Each battalion had two grenadier and eight battalion companies. Promotion and furlough rules for the officers were promulgated and interior economy was improved. At the same time the Madras and Bombay armies were reorganised. The Madras cavalry was formed into four regiments, having twelve British officers each, the artillery into two battalions of five companies each and fifteen companies of lascars. The native infantry was organised in eleven two-battalion regiments, rather stronger than those of the Bengal establishment. There were also two battalions of European infantry. The Bombay Army was organised on similar lines, with an establishment of six two-battalion regiments and a Marine Battalion; six companies of European artillery were formed in 1798.

#### **Policy of Wellesley.**

Besides the wars that have been referred to, the East India Company had been engaged in minor operations, particularly against the growing power of the Marhattas, which menaced the stability of the British in India. In 1798 the Marquis Wellesley arrived as Governor-General firmly imbued with the necessity of reducing the power and influence of the French, which had again arisen through the military adventurers who had established themselves in the service of various native powers. There was a French party at Seringapatam, and the ruler of Mysore was in correspondence with Napoleon Bonaparte in Egypt. At Hyderabad the French adventurer Raymond dominated the State army, having under his command a disciplined force of 14,000 men who carried the colours of the French Republic and wore the Cap of Liberty engraved upon their buttons. In the Marhatta States, and especially in Sindia's service, adventurers of the same enterprising nation had disciplined large forces of infantry and artillery; and the blind Mughal Emperor at Delhi was held in the power of Perron, Sindia's French General. One of the first acts of the new Governor-General was to disarm the French party at Hyderabad, a measure carried out by Captain (afterwards Sir John) Malcolm. The French officers in the Nizam's service were deported to their own country, and a treaty of alliance was concluded under the terms of which a Contingent of Hyderabad Troops was supplied for service in the campaign of Seringapatam. Troops of all three presidencies took part in the campaign which terminated with the capture of Seringapatam and the death of Tipu on the 4th May 1799. It was in this campaign that Colonel Arthur Wellesley, afterwards Duke of Wellington, came into prominent notice. It was now necessary to direct attention to affairs in the Marhatta States, which were encroaching on the territories of our ally the Nizam, and had a dangerous ascendancy throughout India. An opportunity occurred in supporting the Peshwa, who had been expelled from Poona by Holkar.

#### **The Marhattas.**

The Marhattas, originally mere predatory hordes, had become an organised nation under the rule of Sivaji. After his death

the Government which he had inaugurated passed from the feeble hands of his successors, the Rajas of Satara, into those of the astute Brahmin Ministers, the Peshwas, who had their seat at Poona. Other Marhatta princes, descended from officers of State—Sindia Holkar, the Gaikwar and the Raja of Berar—held sway over a great part of India, and were attempting to extend their dominions and consolidate their influence from the Ganges to the Godavery. The Marhattas, famous as irregular predatory hordes in times gone by, had never been remarkable for courage, the place of which was supplied by their natural astuteness and capacity for organisation. The genius of the nation lay more in the direction of diplomacy and intrigue, and a false glamour appears to surround their name as warriors, to which history has lent an undeserved prestige. Their success must in part be prescribed to their intellectual acumen and subtlety, and in part to the effete condition of those with whom they had to contend. The edifice of their nationality was built on the ashes of the declining Mughal Empire. But even since the days when their military renown had rested on some solid foundation they had rapidly declined, and the phantom of their fame was dissipated the moment they came into collision with European armies. Their artillery and infantry, composed of Jats, Rajputs, Arabs and other mercenaries, fought with desperate valour, but the far-famed Marhatta horse disappeared from the field at the beginning of every action. General Lake in the north of India defeated the forces of Sindia in a succession of battles at Aligarh, at Agra, at Delhi and Laswari; while in the south General Arthur Wellesley captured Ahmednagar and Gawilgarh, and gained complete victories over the combined forces of Sindia and the Raja of Berar at Assaye and Argaum. In these campaigns a considerable British force and a large portion of the Bengal and Madras armies were employed; they acquitted themselves with their customary valour, and gained some of the most notable victories recorded in English history. During the progress of these wars the Army of India was considerably augmented, and we find that on reduction to peace establishment in 1805 there were some 25,000 British and 130,000 native troops in India.

#### **Mutiny at Vellore.**

The Indian Army has been from time to time subject to incidents of mutiny which were precursors of the great cataclysm of 1857. In the fort of Vellore in 1806 were confined the sons of Tipu Sultan, these descendants of the most fanatical enemy of the English in India being permitted to maintain a large body of adherents and an almost regal state. Naturally they intrigued. The native soldiers of the Company had grievances. The military authorities had issued a new pattern of turban, which owing to its resemblance to the head-dress worn by half-caste drummers, gave rise to a rumour that their conversion to Christianity was intended. Other inconsiderate orders, prejudicial to the religion and sentiments of both Hindus and Mahomedans, caused the smouldering discontent already existing to break off into open

mutiny. There were many signs and portents typical also of the greater rebellion. The officers had become estranged from their men and lived too much apart from them. The native troops suddenly broke out and killed the majority of the European officers and soldiers, their wives and children, quartered in the fort, while the striped flag of the Sultan of Mysore was raised on the ramparts. But if the parallel so far is close, the method of dealing with the outbreak of 1804 differed widely from the weakness displayed at Meerut in 1857. There was happily at the neighbouring station of Arcot a soldier of energy, decision, and courage both moral and physical. Colonel Gillespie with the 19th Light Dragoons and galloper guns came down upon the mutineers like a hurricane, blew in the gates of the fort, destroyed most of the sepoys, and in the course of a few hours suppressed the rebellion. This retribution struck terror into the hearts of other would-be mutineers and disaffection, which was rife throughout the Madras Army, did not elsewhere find active expression.

#### Overseas Expedition.

Almost as dangerous was the mutinous discontent excited among the British officers by the ill-advised measures of Sir George Barlow, unfortunately acting temporarily as Governor-General in 1809, which was with difficulty quelled by the tact of wiser and more considerate men. It was not only within the confines of India that the Army distinguished itself during the period under review. Expeditions were made beyond seas. Bourbon was taken from the French; Caylon, Malacca, and the Spice Islands were wrested from the Dutch; and Java was conquered in 1811 by a force largely composed of Bengal troops which had volunteered for this service. In 1814 took place the Nepal War, in which the brave Gillespie who had so distinguished himself at Vellore and in Java, was killed when leading the assault on a fort near Dehra Dun. This war is chiefly of interest from its having introduced us to the Gurkhas, inhabitants of Nepal, who form so large and efficient a portion of our Indian Army.

#### Second Mahratta War.

In 1817 hostilities again broke out with the Mahrattas. The primary cause of the war were the Pindaris, a military system of bandits of all native races and creeds who, formed mostly from the military adventurers who had been employed by native potentates, had established themselves in strongholds on the banks of the Nerbada river, from whence they issued to plunder the country from the end to end. These people had become so formidable that a large army had to be assembled for their destruction, for they viewed with dismay and opposed with force the establishment of effective power in the land where they had so long carried on with impunity their lawless modes of life. To cope with this growing evil, armies were to close in from every direction on the fastnesses of the Pindaris. At the same time a watch had to be kept on the Mahratta States, whose rulers encouraged by the feeble policy that had followed when the strong hand of the Marquis Wellesley was removed, were pre-

pared to take up arms once more. Practically the whole of the Army took the field, and all India was turned into a vast camp. The experiences of 1817 differed in no wise from those of 1803, except that resistance was less stubborn as the brigades of the European military adventurers no longer existed in the Mahratta armies. The Chiefs of Poona, Nagpore, Indore and Gwalior rose in succession. At the battle of Kirkee, where the tramp of the myriad Mahratta horse shook the very earth, they were beaten off by one-tenth of their numbers after a feeble attempt to charge a native regiment. At Koregaum where the detachment under Captain Staunton offered so gallant a resistance to the attacks of a vastly superior force, the Arabs alone fought on the side of the Mahrattas, 20,000 of whom stood idle on the plain. At Sitabaldi a few regiments of Madras native infantry beat off the attacks of the army of the Raja of Nagpore, and victory was assured by the charge of a troop of Bengal cavalry. At the battle of Mahidpur the hosts of Holkar melted like snow from the face of the desert before the determined onslaught of a small army of British and native troops. This was the last war in Southern India. The tide of war rolled to the north, never to return. In the Punjab, to the borders of which our frontier was now extended, the Army was to meet in the great military community of the Sikhs, a braver and more virile foe.

#### Reorganisation in 1824.

In 1824 there was another outbreak of mutiny, this time at Barrackpore in a regiment that was unwisely dealt with when about to proceed to the Burmese War. In that year the armies were reorganised, the double-battalion regiments being separated, and the battalions numbered according to the dates when they were raised. The Bengal Army was organised in three brigades of horse artillery, five battalions of foot artillery, two regiments of European and 68 of native infantry, 5 regiments of irregular and 8 of regular cavalry. The Madras and Bombay armies were constituted on similar lines, though of lesser strength. There were also various local forces, such as the Hyderabad Contingent, paid for by the Nizam, consisting of horse, foot and artillery. The irregular cavalry were all salladars, that is the troopers furnished their own horse and equipment, as do the greater part of the native cavalry of to-day. The irregular and local corps had each only two or three European Officers.

#### First Afghan War.

In 1839 the occupation of Afghanistan was undertaken, Kabul was occupied, and a large Army stationed in this country beyond the Indus. There followed the disasters of Kabul, the murder of British envoys, and the retreat in which a whole army perished. This disaster was in some measure retrieved by subsequent operations, but it had far-reaching effects on the morale of the Army and on British prestige.

#### The Sikhs.

The people of the Punjab had witnessed from afar the disaster of the retreat from Kabul. It is true that they had seen also the advance of the victorious army, and the triumph of its return which was celebrated



with barbaric pageantry at Peshawar; but the British army had lost the prestige of invincibility which it had gained during a hundred years of victory throughout peninsular India. It is convenient here to give some account of the Sikhs in whom our army met a more formidable enemy than they had hitherto encountered, who have since supplied many of the best soldiers in its ranks, and who less than nine years later served with valour and fidelity beneath our colours in the great struggle of the sepoy war. In the early part of the sixteenth century Baba Nanak, a peasant of a village near Lahore, founded the religious sect which was to play such an important part in the history of India. The religion he preached was pure monotheism and in no way militant in its original form. The new faith, founded on the Unity of God and the religious equality of man, gradually made great headway, the philanthropy and tolerance of its tenets appealing to the hearts of men. The Gurus who succeeded Nanak were active in their teaching; they founded and built the Golden Temple at Amritsar; and the sect began to assume a political significance. This brought them into conflict with the Mughal Government, and Sikhism was subjected to that persecution which was alone necessary to transform it into a militant political force. Har Govind, the Sixth Guru, became a military as well as a spiritual leader, and on his death in 1645 left the Sikhs a strong and militant power.

After two hundred years the Sikh faith became established as a guiding principle to work its way in the world. Nanak disengaged his little society of worshippers from Hindu idolatry and Mahomedan faith; Amar Das preserved the community from declining into a sect of ascetics; Arjan gave his increasing followers a written rule of conduct and a civil organisation; Har Govind added the use of arms and a military system; Govind Singh bestowed upon them a distinct political existence, and inspired them with the desire of being socially free and naturally independent. Sikhism arose where fallen and corrupt Brahminical doctrines were most strongly acted on by the vital and spreading Mahomedan belief. As in the case of other sects whose vicissitudes are recorded in the history of the world, religious persecution gave to Sikhism that vivifying influence which was the necessary stimulus to permanence and progress. With varying fortunes the power of the Sikhs was consolidated, and by 1785 they were predominant from the frontiers of Oudh to the Indus. Their prestige is illustrated in the story of the traveller Foster, who describes the alarm caused to a petty Chief and his people by the appearance of two Sikh horsemen under the walls of their fort. The great Chief Ranjit Singh, the "Lion of the Punjab," established his ascendancy throughout that province, and with the aid of European military adventurers such as Ventura and Allard organised a powerful regular army. Ranjit Singh had the wisdom to keep on friendly terms with the English; but his death was the signal for internal dissensions which in course of time rendered the Army the principal power in the state, and brought them into conflict with their English neighbours.

### **Sikh Wars.**

A large portion of the Bengal Army under Sir Hugh Gough took part in the first Sikh War in 1845-6, in the opening battle of which, at Mudki and Ferozeshahr, the native troops did not greatly distinguish themselves; although they retrieved their reputation in subsequent actions when the Sikhs were defeated at Aliwal and Sohraon. But the Bengal Army had for some time been undergoing that deterioration of discipline which culminated a dozen years later in the mutiny. They were no longer the soldiers of Lake and Hastings; the heroes of Laswari, of Serhgapatam, and of expeditions overseas. In the snows and deserts of Afghanistan and amid the bloody scenes of the Khurd Kabul Pass and Jagdalak they had lost much of their ardour and prestige, while they had witnessed the defeat and slaughter of their hitherto invincible English comrades. They fought well on occasion; stimulated by the presence and example of English regiments; but their training and discipline left much to be desired. The second Sikh War followed a few years later, when, after the indecisive battle of Chillianwala, the Sikhs were finally vanquished at Gujarat. The other campaigns belonging to this period were the conquest of Sind by Sir Charles Napier and the Second Burmese War. On the eve of the Mutiny there were in the Bengal Army 21,000 British and 137,000 native troops; in the Madras Army 8,000 British and 49,000 native troops; and in Bombay 9,000 British and 45,000 native troops. The conquest of the Punjab extended our frontier to the country inhabited by those turbulent tribes which have given so much trouble by their raids and forays, while they have supplied many soldiers to our army. To keep order on this north-western limit of the Empire the Punjab Frontier Force was established, and was constantly engaged in small expeditions which, while they generally involved but little bloodshed, kept the Force fully employed for many years, and involved much arduous work in the pursuit of an elusive enemy.

### **The Indian Mutiny.**

The history of the Indian Army in general and of the Bengal Army in particular is so closely bound up with the great Mutiny of 1857 that it is necessary to enter into some account of the causes which brought about that catastrophe, and to sketch in outline its chief events. In 1856 Lord Dalhousie resigned the Viceroyalty of India after a term of office marked by strenuous activity and by an extensive policy of annexation. From Oudh a disolute and incompetent king was removed and his territories were annexed to the British dominions, an act which could not but have a disturbing effect in a country where the natural and hereditary rulers of the people were regarded with the greatest veneration. The territory of Jhansi was also annexed. The Government refusing to allow the Rani to adopt an heir to succeed her deceased husband, and the Nana of Bithur, adopted son of the last Peshwa, Bajirao, was refused a continuance of his adoptive father's pension. These two latter, the Rani of Jhansi and Nana Sahib, became the bitterest and most cruel of our enemies. The

annexation of Oudh was a severe shock to the susceptibilities of the feudal nobles of that province, from which, it must be remembered a large portion of the Bengal Army was recruited. There were thus political causes of disaffection in India apart from the constant presence of racial difference, fostered by political agitators and a seditious press. There were Princes and States ripe for rebellion; while on the throne of the Mughals at Delhi there sat the shadow of a monarch whom tradition and the greatness of a name caused to be venerated by Mussalmans throughout India. And in the Bengal Army political agitators found a fertile soil for planting the seed of corruption.

The infantry of that army had in its ranks a great majority of Oudh sepoys; while men of the same race formed the bulk of forces such as the Gwalior Contingent, maintained by Native States under the terms of treaties with the British Government. A small percentage of Mahomedans of Hindustan was also to be found in the Bengal Native Infantry, while they supplied the greater part of the Cavalry of that Presidency. It will thus be understood that in both armies there was a dangerous preponderance of one class, facilitating and extending combination on the part of the disaffected. It was different with the armies of the other Presidencies, which were entirely separate from the Bengal Army, and under their own Commanders-in-Chief, and where men of every caste and creed were mingled in the ranks, a system which obviated the likelihood of combination among men ever prone to be suspicious of one another. There were in the Madras Army family ties to keep the men true to their salt. In that Presidency the sepoy had in almost every instance a large number of relatives living with him. He was not likely to abandon these relations to their fate, and mutiny against the Government he served. The Presidential system, in fact, offered an effective safeguard in the "water-tight compartments" that prevented those armies from intermingling. There was not only no sympathy but some antagonism between the different armies; and on one occasion when regiments of the northern and southern Presidencies were serving together, an order had to be issued that the Madras sepoys were not to irritate their brethren by calling them "Bengalis" which was regarded as an opprobrious term, applicable properly to a despised and unwelcome race which has never furnished any soldiers. While the susceptibilities of the Oudh sepoy had been hurt by the annexation of his country, the Muhammadans still held in veneration the puppet who occupied the throne of the great Mughals and cherished the recollection of former glory and power. They had in addition the influence of a fanatical religion to incite them to a holy war against the Christians. Their combination with the Hindus is, however, somewhat remarkable, and the causes which brought these antagonistic peoples into alliance must be sought for elsewhere than in political influences. That there were leaders such as the Nana, the Rani of Jhansi and the Maulvi of Fyzabad who made use of the native army for purposes of rebellion has already been indicated. But the army would not mutiny merely

at the instigation of a few political intriguers and agitators. The seeds of disaffection had long been growing in the Bengal Army. The disasters of the Afghan War had taught the sepoy that his European comrade was not invincible. The proportion of Native to British soldiers in India was far too great. The Indian Empire in those days rested too largely on mercenary forces. There were in the country only some 38,000 British soldiers, while the native troops numbered 200,000 men, exclusive of the numerous levies of independent or semi-independent princes. A great establishment of native artillery had grown up. While the Bengal sepoy had deteriorated in *morale*, he had cause for discontent. He had been alternately pampered and abused. The grant of extra allowances on all occasions for field service had in the first place excited his cupidity; their withdrawal had aroused his discontent. He feared that attempts were being made to destroy his caste and subvert his religion, the points on which he was most sensitive. There was, too much centralisation of power in the hands of the military authorities at Army Headquarters. The proselytising spirit was abroad, and some amiable but fanatical officers preached their religion about the country. The crucial question of the greased cartridges brought matters to a head. With a great deal of reason the sepoys complained of the new cartridge, the paper of which was greased with animal fat, said to be that of swine and oxen, the former abhorrent to Mussalmans, the latter sacrilegious to Hindus. The mysterious unleavened cakes were circulated, and while their significance was realised by some, it was ignored by those in authority.

#### Course of the Rising.

The introduction of the new cartridge for the Enfield Rifle in January 1857 caused widespread alarm among the native ranks of the army. At Berhampore the 19th Bengal Infantry mutinied, and was marched to Barrackpore, and there disbanded on the 31st March. On the 29th March, sepoy Mangal Pande, of the 34th Bengal Infantry at Barrackpore, attacked and wounded the Adjutant and European sergeant-major of his regiment. At Meerut on the 24th April eighty-five men of the 3rd Bengal Cavalry refused to take the new cartridge. They were tried and sentenced to ten years' imprisonment, their sentence being announced and fetters rivetted on at parade on the 9th May. This degrading aggravation of punishment was the spark that fired the mutiny. Next evening the troops in Meerut rose, and, aided by the bazaar rabble, killed every European they met, released their comrades from the gaol, and went off to Delhi. It is unfortunate that there was at Meerut no senior officer capable of dealing with the crisis. There were in garrison two batteries of field artillery, as well as one of the finest cavalry regiments in the British Army, the Carabiniers, and a battalion of Rifles. But fatal inaction paralysed the Europeans, and the mutinous soldiery marched unmolested to Delhi. Here the troops soon followed suit, murdered some of their officers, while others escaped, and a number of Europeans of all ages and both sexes was massacred in the

place and in the streets. An army was at once organised for the recovery of Delhi, while forces were collected in the Punjab, while remained loyal under the strong hand of John Lawrence. The British columns having defeated the rebels who opposed them at Badli-ki-Sarai, arrived before Delhi on the 8th June, and began the long siege which terminated with the capture of the city in the middle of September, when the heroic Nicholson fell in the hour of victory. Meanwhile the mutiny had spread to other corps of the Bengal Army. The native troops at Cawnpore rose on the 4th June, massacred the Europeans of the Garrison who surrendered on the 27th, while the women and children were butchered on the 15th July, the day before Havelock's relieving column defeated the Nana and entered Cawnpore. There was mutiny at many other places during this period not only at stations north of the Jumna, but in Central India, and in Rajputana, where the disaffected troops of the Gwalior Contingent were stationed at Gwalior, Neemuch, Nasirabad and other cantonments. At Jhansi a general massacre took place, when the Europeans unwisely surrendered to their pitiless foe. Throughout Bundelkhand and the Central Provinces the wilder spirits of the country rose and banded with the mutineers. With few exceptions the Bombay Army remained loyal, as did the Madras Army and the Hyderabad Contingent, although there were some isolated out-breaks at Hyderabad and at Shorapur. But generally speaking the rebellion did not spread south of the Tapti River. On the 30th September the troops at Lucknow rose, and there began the long and glorious defence of the Residency by the beleaguered garrison under Sir Henry Lawrence; Lucknow was relieved by Havelock and Outram on the 27th September, but the rebel hold on the defenders was not relinquished until Sir Colin Campbell advanced and drove off the mutineers with terrible slaughter two months later. Having relieved Lucknow, Sir Colin Campbell marched to Cawnpore, where General Windham had been driven into the intrenchments, and was with difficulty holding his own against the Gwalior Contingent under Tantia Topi. On the 6th December 1857, Cawnpore was relieved, and the rebels retired on Kalpi. It was not until 1858 that the small army under Sir Hugh Rose, the most skilful and enterprising leader of those times, marched through Central India, relieving many beleaguered places, fighting many pitched battles, and avenging the massacre of Jhansi in the storm and capture of that place, at the capture of Kalpi, and at Gwalior where the Rani of Jhansi was killed at the head of her troops, and Sindia was restored to the capital from which he had been expelled.

#### **Reorganisation after the Mutiny.**

When the country had been pacified, the Government of India was assumed by Queen Victoria, and the East India Company ceased to exist. The Company's European regiments were transferred to the crown, and a regular system of relief of British regiments employed in India was instituted, the charges being paid out of the Indian revenues. The Bengal Army had almost disappeared; and while a new army was raised in that Presidency, the Madras

and Bombay armies were also reorganised. Native artillery was abolished, with the exception of some mountain batteries and the field batteries of the Hyderabad Contingent. The officering of the reorganised armies was carried out by the organisation of a Staff Corps for each Presidency, on which the officers were all borne on a general list and supplied to regiments and to the staff. On completion of the reorganisation in 1863, the armies had the following strength:—

Bengal Army—19 Cavalry and 49 Infantry regiments.  
 Madras Army—4 Cavalry and 40 Infantry regiments.  
 Bombay Army—7 Cavalry and 30 Infantry regiments.  
 Punjab Frontier Force—6 Cavalry and 12 Infantry regiments.  
 Hyderabad Contingent—4 Cavalry and 6 Infantry regiments.  
 Other Local Corps—2 Cavalry and 5 Infantry regiments.

The total strength amounted to 140,000 men; and there were in India 65,000 British soldiers. The regiments were officered by a reduced cadre eventually fixed at eight British officers to each corps, except that the Hyderabad Contingent and other local corps had an establishment of four only. The promotion of officers was made dependent on length of service, 12 years to Captain, eventually reduced to nine years, 20 years to Major, reduced to 18 years, and 26 years to lieutenant-colonel. The Staff Corps system, which still continues in fact though not in name, has the disadvantage that it entails the frequent transfer of officers from one corps to another.

#### **Minor Campaigns.**

During the period succeeding the mutiny, until 1870, when the second Afghan War began, there were many minor campaigns, including the Ambeyla expedition, the China War of 1860, and the Abyssinian War, when Napier of Magdala, who had fought in the Sikh Wars and in the Mutiny, commanded the expeditionary army. There followed the Afghan War, in which the leading figure was Lord Roberts. There were expeditions to Egypt and China, and various frontier campaigns, the most important of which was that on the North-West Frontier in 1897, since when that turbulent country has been generally quiet. There were also the prolonged operations following on the annexation of Burma, several campaigns in East Africa and Somaliland, and the expedition to Lhasa. But since the Afghan War the Army of India, except that portion of the British garrison which was sent to South Africa, has had little severe fighting, although engaged in many arduous enterprises.

#### **Reforms.**

The twenty years which began in 1855 witnessed many reforms and augmentations of the Indian Army, due to preparations to resist the menace of the Russian advance towards India. The composition of the Army was improved by the elimination of unwelcome men from the ranks. In pursuance of this reform many Madras regiments were reduced and replaced by corps composed of more virile races. "Class" troops and

companies were formed instead of men of every caste and creed being mingled in the ranks and in some cases class regiments were raised. But it is generally held that, it is better to form regiments of class companies and troops, although the class regiment has its advocates among those who hold that such an organisation facilitates segregation in case of trouble. In 1887 we find the British Army in India numbering about 74,000 and the Indian Army 153,000 men. In 1888 Indian battalions were grouped in threes, each with a regimental centre, and reserves for the native army were instituted; these have been gradually augmented until the establishment numbers 25,000. In the following year Imperial Service troops, to be placed at the disposal of the British Government in case of emergency, were raised in Native States. These number 21,000 men offered by Indians and having Inspecting Officers furnished by British Officers of the Indian Army. In 1891 the Staff Corps of the three Presidencies were amalgamated, the first step in the abolition of the Presidency distinctions, furthered two years later by the abolition of the appointments of Commander-in-Chief of the Madras and Bombay Armies. While the fighting strength of the Army had been augmented and improved during all these years, the administrative services had not been neglected. The Supply and Transport services were improved and the Ordnance and Military Works were reorganised, and measures were taken for the improvement of defences, mobilisation and equipment. Changes were made in regimental organisation, and the pay and allowances of the troops were raised from time to time.

The number of British officers has been augmented at intervals. The establishment in the native infantry formerly consisted of a Commandant, two Wing Commanders, and five Wing Officers. In 1900 the Double Company system was instituted, each pair of companies being placed under a Double Company Commander, the Wing Commanders being abolished. The establishment of regiments now includes 13 or 14 British officers, squadrons and companies being commanded by native officers, of whom there are 16 in a regiment. Risaldars and Subadars commanding troops and companies, while Jemadars are their subalterns.

### Lord Kitchener's Work.

The most momentous changes that have taken place in the Indian Army since the post-mutiny reorganisation were carried out under the regime of Lord Kitchener, who assumed the office of Commander-in-Chief at the end of 1902. When Lord Kitchener arrived in India, the Commander-in-Chief had only executive command of the Army, with an Adjutant-General and a Quartermaster-General as his Chief Staff Officers. There was no General Staff, the Staff of the Army in India being divided between the departments of the Adjutant-General and Quartermaster-General. The administrative departments of the Army were under the Military Member of the Governor-General's Council, of which the Commander-in-Chief was an extraordinary member. The condition of affairs was not satisfactory. The proposals of the Commander-in-Chief regarding

measures involving expenditure had to be submitted to the Financial Department through the Military Department, which had entire control also of the Supply and Transport, Ordnance, Military Accounts, Remount and Military Works Departments. The consequence was frequent differences of opinion between the Military Department and Army Headquarters.

Lord Kitchener organised a General Staff, and established a Staff College at Quetta for the training of officers in the requisite duties; a Chief of the Staff was appointed, and the proper division of the work of Staff Officers was made, those of the General Staff being made responsible for the branch dealing with the Art of War, including the training of troops, while routine and administrative duties were undertaken by officers of the Adjutant-General's and Quartermaster-General's Departments.

On arrival in India Lord Kitchener found that the military system, originally constituted on sound lines, had gradually departed from the intention of its founders, and much of the power properly belonging to the Commander-in-Chief had been usurped by the Military Department, while a succession of economical Finance Ministers had so cut down the military estimates and held the purse-strings so tightly that it was impossible to force through any costly measure for the defence of the country. The military chaos which was the slow growth of a hundred and fifty years of constantly changing conditions required remoulding into an orderly cosmos. The Army was in many respects, with its want of proper organisation for external war, its ponderous and antiquated administrative system, its faulty distribution in units scattered on no known strategical plan, more suited to the circumstances of a bygone age, when the country had only recently been conquered and troops had to be retained at remote and isolated stations to overawe the inhabitants. While the Commander-in-Chief was a strong and determined man with a genius for organisation, the Viceroy was also a great personality, holding strong convictions, and naturally a champion of the civil power. Lord Kitchener wished to remove the obstruction of the Military Department. Lord Curzon could brook no weakening of the power of the Civil Government. The question was not merely one of the abolition of a Department which had grown obsolete in its methods. It was a question of the status of the Chief Military Authority in the country.

### Military Department abolished.

On the recommendation of a Committee composed of Lord Roberts, Sir George White and Sir Edward Law, the Military Department was abolished, and the Military Supply Department established in its place in 1905. Lords Curzon and Kitchener again came into conflict regarding the personnel of the new Department, and the former resigned. The Commander-in-Chief now set about the task of reform. He had since his arrival in India been studying the situation, reviewing the state of our military organisation, grasping its defects and contemplating its needs. The advance of Russia towards the Hindu Kush dominated the situation as it had done for the

part of a hundred years. Under the old chaotic system the mobilisation scheme provided for the despatch of two armies, one through the Khyber, the other by way of Quetta to Kandahar. From the North-West alone, whence the conquering hordes of all the invaders whose march is recorded in history had poured from time immemorial, was the Empire of India subject to menace from without.

But under the system then existent the measures arranged for defence provided for a force of only four Divisions of all arms. This force was not only inadequate in numbers but in capacity for expansion. Its distribution and organisation were more suited for policing internal India than to contend with an external foe. The troops were distributed in Districts under generals whose commands were geographical in designation and in area. Here were no complete Army Corps, Divisions, and Brigades ready to take the field. In case of war the troops for the field army were to be drawn from all parts of India, the various units being sorted out into Brigades and Divisions on arrival at the base of operations, and provided with a scratch lot of generals and staff officers for the occasion.

#### **Army Re-distributed.**

It was in the reorganisation of the scattered and heterogeneous forces of the Indian Empire that Lord Kitchener's great work lay. Some steps had already been taken towards the abolition of those Presidency distinctions which formerly divided the Indian native forces into three armies supplemented by a congeries of local forces. But he found three armies, each confined to its own geographical limits, beyond which its units and its personnel did not ordinarily proceed; or when they did, they carried the chains which linked them to their respective Presidencies. The units of the Indian Army were renumbered, a fruitful cause of confusion being thus eliminated; Presidency and local distinctions were abolished, and a homogeneous army, though composed of heterogeneous races, free to benefit by the experience of service in any part of India, was created. The experience of 1857 proved the measure of safety provided by the presidential system of three armies with nothing in common between them; but the new regime considered that the conditions of fifty years ago were obsolete, and had been entirely changed by increased facilities and rapidity of communication throughout the Empire.

The whole army was formed into nine Divisions, exclusive of the Burma Division, each with its proper complement of the three arms, under its General with staff complete. These Divisions were organised for war; each one could take the field intact, leaving behind sufficient troops for the maintenance of internal order. Arrangements were made for the organisation of supply and transport. The reserve was not sufficiently large to supply the wastage of war; it was expanded, the infantry reserves being augmented, while the cavalry was included in the system. Small and isolated stations were by degrees abandoned, the Divisions or at least the Brigades, being assembled with a due regard to strategical requirements and to the necessities of training, though some are extended over a

wide area of country. The nine divisions were distributed between two armies, each with its Commander, their heads resting on the main routes at Quetta and Peshawar.

The Military Supply Department, with its Member on the Governor-General's Council, was abolished in due course; an Army Department was created, to deal with much of the business carried on by its predecessor, with a Secretary in Charge. The Commander-in-Chief is now the only Military Member of Council, and it is a question whether he has not a burthen greater than one man can bear. The recommendations of Lord Robert's Committee have been ignored, for that Committee recorded the opinion that "the concentration of the whole responsibility of Supply of the Army under one head, if that head is to be the Commander-in-Chief, would be opposed to all modern principles in regard to Armies." It was feared that the system now obtaining would lead to the diversion of too large a portion of the time of the Commander-in-Chief from his natural military duties; and it certainly appears that the functions and status of that high officer have largely altered.

Indian regiments are numbered consecutively, the infantry from 1 to 130, the cavalry from 1 to 30. They have subsidiary titles based upon their composition, their territorial origin, or the names of distinguished officers with whom they were connected.

British troops are periodically relieved from England and the Colonies, regiments ordinarily being some fifteen years in India, where they are kept on a war-footing by drafts sent from the regimental depots. Native troops consist of every warlike class, a great variety of races being found in the ranks. Gurkhas and Sikhs to a great extent, are organised in class regiments. There are Rajputs of both Oudh and the United Provinces; Jats, Dogras, Mahrattas, Pathans, Baluchis and Hazaras. Mahrattas are enlisted in Regiments of the old Bombay Army; Mahomedans from the south of India and from Hindustan are found in the ranks of many corps, and most of the Frontier tribes furnish their quotas.

The native officers generally rise from the ranks, but some are given direct commissions, although this system has not been largely adopted. The volunteers form a valuable and efficient body of men, who would be most useful in emergency, having a good knowledge of the use of arms and furnishing some of the best shots in the country.

The Military Police is largely composed of warlike races, especially in Burma, which is mainly garrisoned by these corps, while in Central India the aboriginal Bhils find employment in the ranks. These, however, though a useful auxiliary, do not form part of the Army, and serve under the orders of the Civil Government.

The Divisions of the Army are distributed as follows, their headquarters being at the Stations indicated.

Northern Army. Headquarters-Murree.	
1st Division	•• Peshawar
2nd "	•• Rawal Pindi
3rd "	•• Lahore
7th "	•• Meerut
8th "	•• Lucknow

● Indian Brigades.	
Derajat Brigade ..	Dera Ismail Khan
Bannu Brigade ..	Bannu
Southern Army. Headquarters—	Ootacamund.
4th Division ..	Quetta
5th „ ..	Mhow
6th „ ..	Poona
9th „ ..	Ootacamund
Burma Division ..	Mandalay

### Services of the Sepoy Army.

The history of the Army of India has now been traced since its inception down to the present time. The military history of the world presents no more remarkable spectacle than that of the great army of soldiers of fortune which, led by a few British officers, has carried our flag into every corner of the Eastern Hemisphere during the past hundred and fifty years. Soldiers by birth and breeding, who with their first accents learnt to lip of war, the sepoys of Hindustan and of the four quarters of India have served the Empire from Northern China to Ceylon, and from Egypt to the islands of the Eastern seas. In the conquest of India itself, in seconding the valour of a handful of British soldiers, they have borne a conspicuous part. The very men who opposed us so courageously in war—Sikhs, Gurkhas, Pathans of the North-West Frontier, Jats and Rajputs—have fought with no less valour in the ranks of our army. They braved the terrors of the black and unknown seas in sailing to the conquest of Bourbon, Mauritius and Java. With Cornwallis and Harris they traversed the passes which, dark with jungle and worn by mountain torrents, led them to Mysore and Seringapatam. Under Stringer Laurence, Olive, Eyre Coote, Lake and Wellesley they helped to oust the French from Southern India. The great theatre of war in which they fought was diversified by every physical feature and characterised by considerable varieties of climate. It was inhabited by peoples of many races and many tongues. Pathans, Mahrattas, Sikhs and Rajputs represented the civilisation of the Orient; aboriginal Bhils and Gonds shared with savage beasts the fastnesses of forest and mountain.

Not only the hostility of man, but the forces of Nature had to be encountered and overcome. There were ranges of rugged mountains abounding with wild beasts and clad with dense forests, whose solitudes were seldom disturbed by the presence of man, and culminating in tall peaks crowned by massive forts, hoary with age and bristling with guns. There were rich alluvial plains, dotted with villages and large and populous cities, and watered by mighty rivers whose streams poured in turbid floods during the rainy season, but shrank to silver threads in the fierce heat of summer. Death lurked in many shapes. Cholera followed in the track of the troops and fever claimed numerous victims. Even the wild beasts with which the jungles were infested took their toll from the advancing armies.

The sepoy emerged triumphant from the difficulties and dangers which beset him. Led by British officers and in company with British soldiers he helped by his discipline and valour to add all this country to the Empire. Peace was established in the land which had been racked with anarchy. The tide of war

rolled to the north, never to return. From Chitral to Makran our soldiers have followed in the footsteps of Alexander the Great. On the banks of the Hydraspes, on the very ground where the Macedonians defeated Porus two thousand years before, they fought the battle of Chillianwala against the Sikhs, who have themselves since been among the bravest soldiers of our army. Every pass on the frontier traversed by the invaders of old contains the bones of brave men who have fallen in our service. The rude mountaineers of the frontier have eagerly entered the ranks of our army. Beyond the limits of India our soldiers have entered most of the capitals of the East. They have carried the flag to Cabul; to Cairo, to Lhasa, to Peking, to Ava and to Mandalay. Sepoys accompanied Baird, and eighty years later Wolseley, to the Nile's enormous images. Their bayonets have flashed in the sweltering sun of Egypt and the Sudan, in the dense jungles of Burma, in the inhospitable regions of Afghanistan; and on the torrid and desolate shores of the Persian Gulf. The clangor of their trumpets has resounded beyond the snowy passes that lead to the Roof of the World. They have ranged equatorial Africa from the deadly swamps of the maritime plains, and the waterless regions of Somaliland, to the dark and gloomy forests of Uganda and the far interior. The dark page of the Mutiny is itself illumined by many gallant deeds performed in our service by the native soldiers of the Empire. Lucknow was not defended by Europeans alone; among the bravest men on the Ridge before Delhi were men of Indian races; in the glorious campaign in Central India 1858 the wings of Sir Hugh Rose's Army were composed of native cavalry; the mutiny veterans who tottered into the arena at the Coronation Durbar at Delhi had in their ranks many soldiers of native race.

### Improvements in Conditions.

Many improvements have been made in the pay of the soldier and the conditions of service. They are thus summarised in the Report on the Moral and Material Progress of India for the decade 1901-02 to 1911-13. The decade began with an increase of the pay of British troops due to the adoption in India of the proposals of the Home Government for an increase of 2d. a day from the 1st April 1902. This involved an additional charge on Indian revenues of some £225,000 a year. In April 1904 a further increase of from 4d. to 7d. a day was given in the form of service pay. The whole of the service pay issued in India was in accordance with the decision of the Lord Chief Justice, acting as arbitrator between the Imperial and Indian Governments, borne by the latter, the extra charge being thus raised to about £700,000 a year. From the 1st January 1909, in accordance with the intention announced in the Proclamation of the King Emperor on the fiftieth anniversary of the transfer of Government to the Crown, a general increase of pay for all ranks was granted to the Indian Army, and arrangements were made for the free supply of fuel by Government at a cost of £427,000 a year. The increase was Rs. 3 a month for non-commissioned officers and men of the sildadar cavalry and

Rs. 2 for other troops. Other measures that may be noticed were the raising of the kit-money granted on enlistment and the introduction of a boot allowance, the grant of free grass to silladar cavalry when on the march or at manoeuvres and of free passages by rail (within certain limits) for men called home on urgent private affairs—all introduced in 1906; the revision and improvement of the pension rules of the Native Army, and the abolition of the punishment of flogging in time of peace, except for offences for which that punishment is permissible in civil life, in 1907-08; and a revision of the rates of pay of captains and subalterns of the Indian Army, and of regimental salaries, involving a considerable addition to the emoluments of the junior grades in 1909. Since 1910 considerable progress has been made with the improvement of the accommodation for the native troops. It had become obvious that this improvement was a matter of urgency in many cases, and with the persistent rise in prices and wages comfortable and durable buildings could no longer be constructed without a considerable increase of expenditure. In the new lines, a sound type of construction has been adopted, and the work has been entrusted to the Military Works Service instead of to regimental agency. Finally a bonus of half a month's pay, was granted to all non-commissioned officers, and men and reservists of both the British and Indian armies, and to the equivalent ranks of the Royal Indian Marine, at the Coronation Durbar in 1911, at a cost of about £166,000. On the occasion of the Coronation Durbar of 1902, a money grant to be spent at the discretion of officers commanding, was made to all British and native troops.

### Reserves.

The Indian Army Reserve dates from 1886. Under existing arrangements, it consists of men with not less than three years' colour service. Men passing into the Reserve still belong to their respective regiments, and come up for two months' training once in two years. In 1904 when the strength of the Reserve was about 24,500 men, it was decided to raise it gradually to 50,000 men, reducing the reserve pay from Rs. 3 to Rs. 2 a month, and also to form an Indian cavalry reserve by extending the system to Silladar cavalry regiments. Reservists obtain a pension after 25 years' total service. There is a small body of reserve officers.

### The Imperial Service Troops.

The voluntary movement towards co-operation in the task of Imperial defence that led to the formation of the force of Imperial Service Troops was initiated in 1887 by an offer made by theizam of Hyderabad, whose examples

was at once followed by a number of the leading Native Princes. The troops, which are under regular inspection by British Officers, though available for Imperial service when placed at the disposal of the British Government by their Rulers, belong to the States and are recruited from their subjects. Their armament is the same as that of the Native Army, and in training, discipline, and efficiency they have reached a high standard of excellence. They have done good service on the North-West Frontier and also in China and Somaliland. At the beginning of the decade (1901-02 to 1911-12) twenty-three States between them supplied a total of over 16,000 men. Some additional offers of contingents have since been accepted, and the total strength on 1st April 1912 was 22,271, towards which twenty-nine States contributed. The total included some 10,000 infantry, and 7,500 cavalry, while transport and camel corps contributed 2,700 and 700 men respectively. Sappers also numbered about 700. Gwalior contributes nearly 4,000 men, and Kashmir over 3,500; Patiala, Hyderabad and Alwar contribute over 1000 each.

### Volunteers.

The Volunteers of India may be classed under the head of British forces. They include foot and mounted Rifle regiments, light horse, and garrison artillery, with some electrical engineer and other specialised companies. Their role is the defence of ports, railways, cantonments, and civil stations, a number of rifle corps are recruited from railway employees, forming valuable bodies for the defence of their respective railways. Their numbers are as follows:—

Naval Volunteers	523
Cavalry and Volunteer Rifles	4,940
Artillery Volunteers	1,735
Engineer Volunteers	407
Rifles	35,904
Supernumerary	96
Total for 1913	43,671
„ 1912	43,059
„ 1911	41,226
„ 1910	40,969
„ 1909	38,875
„ 1908	37,215
„ 1907	35,484
„ 1906	33,972

### The Imperial Cadet Corps.

The Imperial Cadet Corps was founded in 1901 with the object of providing military training for the scions of ruling and noble families. The Corps consists of about 20 young men of noble birth who have been educated at the Chiefs' Colleges. The course of instruction lasts between two and three years, and the cadets are taught military exercises and military science. Its headquarters are at Dehra Dun.

### STRENGTH OF THE ARMY.

The sanctioned establishment of the army in India on the 1st April 1912 included 9 regiments of British cavalry, 52 battalions of British infantry, 39 regiments of Indian cavalry (excluding attached squadrons and Bodyguards), 137 regiments of Indian infantry, 11 batteries B. H. A. with 9 ammunition columns, 45 batteries R. F. A. with 12 ammunition columns, 6 heavy batteries and 21 com-

panies R. G. A. 8 British and 13 Indian mountain batteries, 20 service companies and 2 railway companies of sappers and miners, and 5 signal companies. As compared with the establishment on the 1st of April 1902, the figures show an increase of 3 regiments of Indian cavalry, 5 regiments of Indian infantry, 3 batteries R. F. A. 2 heavy batteries R. G. A., 2 Indian mountain batteries, 3 service and 2

## Expenditure on Military Services.

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railway companies of sappers and miners, and army of the Hyderabad contingent.

5 signal companies. No artillery ammunition columns were shown in the returns ten years ago, their formation having been part of a scheme undertaken at the beginning of the decade for improving the organisation of horse and field artillery. The most notable change in the sanctioned establishment was the addition of 3 regiments of cavalry and 6 of infantry in 1903 by the absorption into the regular

The table below shows the total sanctioned establishment of the military forces in 1902 and 1912, with the actual strength also in 1912. To the auxiliary forces included in the table might be added the Military Police (total strength about 21,500) and the Border Military Police, Militia and levies (total strength about 13,500).

	Sanctioned Establishment 1st April, 1902.	Sanctioned Establishment 1st April, 1912.	Actual Strength, 1st April 1912.
Troops under the orders of the Commander-in-Chief in India—			
British Officers .. ..	5,058	6,186	6,135
British Warrant and Non-Commissioned Officers and Men .. ..	71,070	73,390	73,472
Indian Officers, Non-Commissioned Officers and Men .. ..	148,049	159,940	151,038
Troops not under the orders of the Commander in Chief—			
British Officers .. ..	136	7	7
Indian Officers, Non-Commissioned Officers and Men .. ..	7,885	21,059	22,089
Reserves .. ..	24,842	35,736	38,811
Volunteers—	1st April 1902.		1st April 1912.
Enrolled Strength .. ..	31,397		38,048
Efficients .. ..	29,479		38,247

## EXPENDITURE ON MILITARY SERVICES.

The figures of expenditure which bring out in a general way the chief features of the decade, ended 1912 are given in the following table below, which shows in summary form the expenditure year by year on all military services :—

	Gross.			Net.		
	Army.	Military Works.	Special Defences.	Marine.	Total.	All Military Heads.
	Rs.	£	£	£	£	£
1902-03 ..	17,346,392	1,096,669	....	409,222	18,852,283	17,634,618
1903-04 ..	17,865,208	1,034,654	27,054	613,751	19,540,667	18,140,823
1904-05 ..	20,175,694	981,599	128,295	620,789	21,906,377	20,696,193
1905-06 ..	19,267,130	1,094,905	146,306	551,070	21,059,411	19,676,639
1906-07 ..	19,657,845	1,127,515	138,358	663,385	21,587,103	20,170,860
1907-08 ..	18,647,533	1,166,943	116,287	485,024	20,415,787	19,24,8354
1908-09 ..	19,177,266	967,362	29,044	476,957	20,650,629	19,602,988
1909-10 ..	18,901,181	858,342	28,604	461,157	20,289,284	19,112,323
1910-11 ..	19,131,780	900,437	7,987	445,867	20,486,071	19,266,042
1911-12 ..	19,536,546	909,657	4,706	450,728	20,901,637	19,556,580



The expenditure on these services in 1912-13 and the Budget estimates for 1913-14 are appended:—

—	Accounts, 1909-1910.	Accounts, 1910-1911.	Accounts 1911-1912.	1912-1913.		1913-1914 Budget.
				Budget.	Revised.	
<i>Expenditure—</i>						
India ..	Rs22,00,10,489	23,13,41,500	23,57,78,260	22,83,24,000	23,23,64,000	23,18,60,000
Equivalent in Sterling ..	£ 15,307,366	15,422,767	15,718,551	15,221,000	15,490,900	15,457,300
England ..	£ 4,041,918	5,063,304	5,183,086	5,100,900	5,491,100	5,550,500
Total expenditure ..	£ 20,249,284	20,486,071	20,001,637	20,412,500	20,982,000	21,007,800
<i>Receipts—</i>						
India ..	R. 1,08,64,346	1,20,30,453	1,29,46,776	1,43,88,000	1,47,95,000	1,48,85,000
Equivalent in Sterling ..	£ 724,290	802,030	863,119	959,200	986,300	992,400
England ..	£ 412,671	418,990	479,938	358,800	360,300	368,600
Total Receipts ..	£ 1,136,961	1,221,029	1,343,057	1,318,000	1,346,600	1,361,000
<i>Net Expenditure..</i>	£ 19,112,323	19,265,042	19,558,580	19,094,500	19,635,400	19,646,800

ESTABLISHED STRENGTH of EUROPEAN and NATIVE ARMIES in BRITISH INDIA  
(exclusive of Native Artificers and Followers) for the year 1911-12.

CORPS.	Northern Army.			Southern Army.			Total.		
	Com mis- sioned Off- cers.	Warrant & Non-Com- mission ed Officers & Privates.	Total.	Com mis- sioned Off- cers.	Warrant & Non-Com- mission ed Officers & Privates.	Total.	Com mis- sioned Off- cers.	Warrant & Non-Com- mission ed Officers & Privates.	Total.
EUROPEAN ARMY.									
Royal Artillery ..	298	7,825	8,123	282	7,368	7,650	580	15,193	15,773
Cavalry .. ..	162	3,594	3,756	81	1,760	1,878	243	5,391	5,634
Royal Engineers .	193	..	193	113	..	113	306	..	306
Infantry ..	784	28,164	28,948	672	24,126	24,798	1,456	52,290	53,746
Invalid & Veteran Establishment.	..	..	..	..	..	..	..	..	..
Indian Army ..	58	..	58	33	..	33	91	..	91
General List, In- fantry ..	..	..	..	..	..	..	..	..	..
General Officers unemployed ..	..	..	..	..	..	..	..	..	..
Total, European Army .. ..	1,495	39,583	41,078	1,181	33,291	34,472	2,676	72,874	75,550

*For the Administrative Commands (q v.).*

CORPS.	British.		Native.		British.		Native.		British.		Native.	
	Officers.	Warrant and N. C. O.	Officers.	N. C. O. and Men.	Officers.	Warrant and N. C. O.	Officers.	N. C. O. and Men.	Officers.	Warrant and N. C.	Officers.	N. C. O. and Men.
NATIVE ARMY.—												
Artillery ..	57	..	6,436	11	..	3,616	68	..	10,051			
Body-Guards ..	3	..	208	4	..	142	7	..	350			
Cavalry ..	372	..	15,509	213	..	9,017	585	..	24,556			
Sappers & Miners ..	24	120	1,774	46	187	3,363	70	316	5,137			
Infantry ..	1,111	..	67,231	910	..	53,444	2,021	..	120,675			
Total, Native Army ..	1,567	120	91,157	1,184	187	60,612	2,751	316	160,769			
Imperial Service Troops†	..	..	9,225	..	..	13,169	..	..	22,304			
Native Reserve series††	Artillery ..	..	1,221	..	..	536	..	..	1,760			
	Cavalry ..	..	868	..	..	416	..	..	1,284			
	Sappers & Miners ..	..	560	..	..	714	..	..	1,274			
	Infantry ..	..	18,082	..	..	12,224	..	..	30,906			
Volunteers—												
Efficients ..	..	19,738	..	..	10,900	..	..	39,644	..	..		
Reservists ..	..	1,620	..	..	1,500	..	..	3,120	..	..		

## THE EAST INDIES SQUADRON.

Since 1903 a squadron of the Royal Navy, known as the East Indies Squadron, has been maintained in Indian waters. It has naturally varied in strength from time to time, and of late years in particular there have been several changes in its Composition, the most recent being in the direction of strengthening it, owing to the disappearance of strength in the other squadrons of the Eastern Fleet. In 1903 the squadron consisted of one second class and three smaller cruisers and four sloops or gunboats. In 1906, when the policy of withdrawal from Eastern waters was inaugurated, it consisted of two second class and two third class cruisers, and remained at this strength until 1910: when one second class cruiser was withdrawn and two smaller vessels substituted, and three cruisers were lent from the Mediterranean to assist in the suppression of the *agras* traffic in the Gulf. By 1913 the position of the East Indies squadron had considerably improved. The battleship *Swiftsure* had taken the place of the second class cruiser which had been flagship, and a modern second class cruiser replaced the *Perseus*. This is apparently part of the scheme for constituting a Pacific Fleet of three "units," one unit being the Australian fleet which is ultimately to consist of 8 battle cruisers, 10 protected cruisers, 18 destroyers and 12 submarines, but up to the present it has completed, or nearly so, one battle cruiser, three others, six destroyers and three submarines. The other two "units" will be the squadrons stationed in China and Indian waters respectively.

The East Indies Squadron now consists of the following ships:—

Flagship: *Swiftsure*, battleship, 11,800 tons.

Rear-Admiral R. H. Peirse, C.B.; M.V.O., Commander-in-Chief. Captain, Raymond, A. Nugent.

Dartmouth, cruiser, 5,250 tons: Captain, H. L. Mawbey.

Pelorus, cruiser, 2,135 tons: Captain, F. H. Mitchell.

Fox, cruiser, 4,050 tons: Captain F. W. Caulfield.

Philomel, cruiser, 2,575 tons. Commander G. N. Ballard.

Alert, sloop, 960 tons: Commander, A. E. Wood.

Espiegle, sloop, 1,070 tons. Commander, W. Nunn.

Odin, sloop, 1,070 tons: Commander W. Mellor.

## Contributions to the Navy.

A cock and bull story, to the effect that the Native Chiefs of India were going to present three super-breadnoughts and nine first class cruisers to the Imperial Navy, was started in November 1912, and directed public attention to the question whether India was paying an adequate amount for the services rendered by the Navy. Even the Naval Annual (1913 edition) took part in the agitation for an increased contribution by India. It says:—"Rumour has been persistent regarding the attitude of India towards the Navy. Some exaggerated statements were published during the year, but nothing definite has been done. This is the more surprising when it is remembered that, although the seaborne commerce of India totals 115 millions sterling, the annual contribution to the Navy is only £100,000 out of a total revenue of 82 millions sterling. It is true that very heavy expenditure is involved in the military forces of India, but the commerce, coast protection, and transporting of troops is dependent upon Britain's sea power. There is a prospect that India will voluntarily follow the example of the self-governing Dominions."

*Indian Naval Expenditure.*

The proportion of contributions from the overseas Dominions towards naval expenditure is shown in the following table issued with the Navy Estimates for 1913-14:—

Received from	Nature of Service.	Total.
		£
	Maintenance of His Majesty's Ships in Indian Waters..	100,000
	Indian Troop Service (on account of work performed by the Admiralty)	3,400
India	Repayment on account of services rendered by His Majesty's Ships engaged in the suppression of the Arms Traffic in the Persian Gulf ..	64,000
Australian Commonwealth Dominion of Canada.	Contributions on account of liability for Retired Pay of Officers and Pensions of Men lent from the Royal Navy.	10,800
Australian Commonwealth Do.	Survey of the N. W. Coast of Australia ..	7,500
	Maintenance of an Australasian Squadron and of a branch of the Royal Navy Reserve ..	41,000
Dominion of New Zealand	Maintenance of an Australasian Squadron and of the Imperial Navy generally, also of a branch of the Royal Naval Reserve .. .. .	100,000
Union of South Africa	General maintenance of the Navy .. .. .	85,000
Newfoundland	Maintenance of a branch of the Royal Naval Reserve ..	3,000
	Total ..	415,300

### India's Marine Expenditure.

That table, however, only shows a part of the expenditure made by India on the Navy. Since 1869 India has paid a contribution of varying amounts to the Imperial Government for consideration of services performed by the Royal Navy. Under existing arrangements, which date from 1890-7, the subsidy of £100,000 a year, already referred to, is paid for the upkeep of certain ships of the East India Squadron, which may not be employed beyond prescribed limits, except with the consent of the Government of India. The chief heads of marine expenditure, which amounts to nearly £100,000 annually, are shown below. Charges and receipts in respect of pilotage are no longer brought to account under this head:—

[illegible]

## ROYAL INDIAN MARINE.

The Royal Indian Marine (The Sea Service under the Government of India) traces its origin so far back as 1612 when the East India Company stationed at Surat found that it was necessary to provide themselves with armed vessels to protect their commerce and settlements from the Dutch or Portuguese and from the pirates which infested the Indian coasts. The first two ships, the *Dragon* and *Hoseander* (or *Oslander*), were despatched from England in 1612 under a Captain West, and since those days under slightly varying titles and of various strengths the Government in India have always maintained a sea service.

The periods or titles have been as follows:—

Hon. E. I. Co's Marine	..	1612—1686
Bombay	..	1686—1830
Indian Navy	..	1830—1863
Bombay Marine	..	1863—1877
H. M. Indian Marine	..	1877—1892
Royal Indian Marine	..	1892, Present day.

The Marine has always been most closely connected with Bombay, and in 1668 when the E. India Co. took over Bombay, Captain Young of the Marine was appointed Deputy-Governor. From then until 1877 the Marine was under the Government of Bombay, and although from that date all the Marine Establishments were amalgamated into an Imperial Marine under the Government of India, Bombay has continued to be the headquarters and the official residence of the Director.

## War Service of the Marine.

1612-1717. Continuous wars against Dutch, Portuguese and Pirates for supremacy of West Coast of India. 1744 War with France, capture of Chandernagore, and French ship *Indienne*. In 1756 Capture of Castle of Gheria, 1774 Mahratta War, capture of Pannab. Latter part of the eighteenth century, war with French and Dutch, Capture of Pondicherry, Trincomalee, Jafnapatam, Colombo, etc. 1801 Egyptian campaign under Sir Ralph Abercrombie. 1803 War with France. 1810 Taking of Mauritius and capture of French ship in Port Louis. Early part of the nineteenth century suppression of Jowasmi Pirates in the Persian Gulf. 1811 Conquest of Tara. 1813 Expedition against Sultan of

Sambar. 1817-18 Mahratta War, capture of Forts at Severndroog. 1819 Expedition to exterminate piracy in the Persian Gulf. 1820 Capture of Mocho. 1821 Expedition against the Beni-koo-Ali Arabs. 1824-26 First Burina War. 1827 Blockade of Berbera and Somali Coast. 1835 Defeat of Beni Yas Pirater. 1838 Expedition to Afghanistan and capture of Karachi. 1838 Capture of Aden. 1840-42 War in China. 1843 Schinde War Battle of Meanee, capture of Hyderabad. 1845-46 Maori war in New Zealand. 1848-49 War in Punjab, siege of Mooltan. 1852 Second Burma War, Capture of Rangoon, Martaban; Bassein, Prome and Pegu. 1855 Persian War, capture of Bushire, Muhammerah and Ahwaz. 1856-57 War in China. 1857-59 The Indian Mutiny. 1859 Capture of the Island of Beyt. 1860 China War, Canton, Taku Forts, Katschan and Pekin. 1871 Abyssinian War. 1882 Egyptian Campaign. 1885 Egyptian Campaign. 1885 Third Burma War. 1889 Chin-Lshai Expedition. 1890 Suakin Expedition. 1897 Expedition to Intirbe, Mombassa E. Africa. 1899-1902 S. African War. 1900-01 Boxer Rebellion in China, relief of Pekin. 1902-01 Somaliland Expedition.

## Personnel, 1913 (4).

## DIRECTOR.

Captain Walter Lumsden, C.V.O., A.D.C., R.N. (Retired), Office Residence, Marine House, Bombay.

(The Director, R.I.M., advises the Government of India on all maritime matters).

## DEPUTY DIRECTOR.

Captain G. S. Hewett, R.I.M., Off. Residence, Marine House, Calcutta.

## ASSISTANT DIRECTOR.

Captain E. J. Hornem, R.I.M., Off. Residence, R.I.M. Dockyard, Bombay.

## OFFICERS.

Commanders	..	..	32
Lieutenants and Sub-Lieutenants	..	..	72
Chief Engineers	..	..	10
Engineers and Assistant Engineers	..	..	72
WARRANT OFFICERS.			
Gunners	..	..	23
Clerks	..	..	20
Engine Drivers	..	..	4

## PETTY OFFICERS AND MEN.

2,225 Recruited from the Ratnagiri District of the Bombay Presidency.

## SHIPS.

Troopships	..	R. I. M. S. Dufferin	.. 6315 tons	.. 10,191 Horse Power.
"	..	" Hardinge	.. 5465 "	.. 9,360 "
"	..	" Northbrook	.. 5039 "	.. 7,249 "
(The above would be armed in the event of war.)				
Station Ship	..	R. I. M. S. Dalhousie	.. 1524 tons	.. 2,202 Horse Power, Aden.
"	..	" Mayo	.. 1125 "	.. 2,157 " Rangoon.
Despatch Vessel	..	" Lawrence	.. 903 "	.. 1,277 " Persian G.
Carries 4.4 pds., F. gun.				
Special Service	..	" Minto	.. 960 tons	.. 2,025 " Persian Gulf.
(employed on suppression of arms traffic).				
Surveying Ship	..	R. I. M. S. Investigator	.. 1014 tons	.. 1,500 Horse Power.
"	..	" Palinurus	.. 299 "	.. 480 "
River Steamer	..	" Comet	.. 182 "	.. 190 " Baghdad.
(carries 2 0.45, 5 Barrel Nordenfelt guns).				
River Steamer	..	R. I. M. S. Bhomo	.. 172 tons	.. 250 Horse Power, Burma.
"	..	" Sladen	.. 270 "	.. 360 " "
Carries 3 Q. F. guns.				

In addition to the above are 31 launches composed of special service launches, target, towing tugs, powder boats, military service launches, etc.

**Dockyards.**

There are two Royal Indian Marine Dockyards at Bombay and at Calcutta, the former being the more important. There are 5 graving docks and a wet basin at Bombay, together with factories which enables the whole of the repairs for the ships of the East India Squadron of the Royal Navy and for the ships of the Royal Indian Marine and local Governments to be carried out, and tugs, lightships, pilot schooners, launches, etc., constructed.

**PRINCIPAL OFFICERS, BOMBAY DOCK YARD.****R. I. M. OFFICERS.**

*Staff Officer*, Lieut. E. W. Huddleston, R.I.M.  
*Inspector of Machinery*, Chief Engineer,  
 T. H. Lush, R.I.M.

**CIVILIAN OFFICERS.**

*Chief Constructor*, Mr. T. Avery  
*Constructor*, Mr. D. H. North,  
*Principal Officers*, Calcutta Dockyard.

**R. I. M. OFFICERS.**

*Staff Officer*, Commander J. J. W. Calderon,  
 R.I.M.  
*Inspector of Machinery*, Chief Engineer,  
 J. Lush, R.I.M.

**CIVIL OFFICERS.**

*Constructor*, Mr. G. F. Newham.

**Appointments.**

In addition to the regular appointments in the ships of the Royal Indian Marine, and in the R. I. M. Dockyards, the following appointments under local Governments are held by officers in the Royal Indian Marine.

**BOMBAY.**

Port Officer, Assistant Port Officer, 1st Engineer and Ship Wright Surveyor and 2nd and 3rd Engineers and shipwright surveyors to the Government of Bombay.

**CALCUTTA.**

Port Officer, Deputy Port Officer and Assistant Port Officer, 2nd and 3rd Engineers and shipwright surveyors to the Government of Bengal.

**BURMA.**

Principal Port Officer, Burma, First Assistant Port Officer, Rangoon. Engineer and shipwright surveyor to Government of Burma.  
 Assistant, Do, do, do, do.  
 Port Officer, Akyab, Moulmein and Bassein.  
 Marine Transport Officer, Mandalay, and Superintendent Engineer, Mandalay.

**ADEN.**

Port Officer.

**KARACHI.**

Port Officer.

**PORT BLAIR.**

Engineer and Harbour Master.

**Expenditure.**

Recent expenditure on the Royal Indian Marine under all heads has been :—

For 1911-1912	..	..	..	..	Rs. 3,762,000.
For 1912-1913	..	..	..	..	Rs. 3,822,000.

Against this were receipts, from Dockyards, for outside work done, and from sales of vessels, stores, etc., which amounted in 1911-12 to Rs. 1,273,000 and in 1912-13 to Rs. 1,318,000, so that the actual cost to the State for the whole service was :—

1911-1912	..	..	..	..	Rs. 2,489,000.
1912-1913	..	..	..	..	Rs. 2,504,000.

**THE NICHOLSON COMMITTEE.**

The Earl of Crewe (Secretary of State for India) announced in the House of Lords on November 2, 1911, that the Government of India was conducting an inquiry into the various departments, with the view of seeing what economies might be effected, and in that operation the Department of the Army was properly included, but there would be no sacrifice of the safety of India or any risk in maintaining order. They had been asked by the Government that they should be assisted in making an inquiry into the whole military position by a Committee over which Field-Marshal Sir W. Nicholson would preside.

The Committee met in Simla in May 1912, consisting of :—E. M. Sir W. (afterwards Lord Nicholson); Lt. General Sir Percy Lake, Chief of the General Staff in India; Lt.-Gen. Sir Robert Scallan, Indian Army; and Sir William Meyer, Chief Secretary to the Government of Madras (now Finance Member of Council). The Committee were instructed by their terms of reference :—First, to carry out a comprehensive survey of the various circumstances requiring the use of Military Force which may arise out of the external or internal situation in India under

the conditions which now exist or may probably arise during the next few years. Secondly, to consider and report on the numbers and constitution of the armed force which should be maintained in India to meet these obligations. Thirdly, to consider and report whether any, and if so, what measures for the reduction of Military expenditure are compatible with the efficient maintenance of that force. Its deliberations, which were private, continued until Lord Nicholson left India in April, 1913, and it was announced in the House of Commons that the Committee's report would not be published. According to the Military correspondent of *The Times* (June 2, 1913) it has "been known for some time past that a division of opinion has taken place within the Committee. Lord Nicholson and Sir William Meyer have signed what must be called by courtesy a majority report, because the distinguished Field-Marshal was given the invitations advantage of a casting vote. But Sir Percy Lake and Sir Robert Scallan are credited with having taken strong exception to many of the proposals made by their colleagues, and will doubtless draft a minority report."

## Indian Finance.

Three important facts have to be borne in mind in considering the finances of India. The first is that the Budget of the Government of India includes also the transactions of the Local Governments, and that the revenues enjoyed by the latter are mainly derived from sources which they share with the Central Government.

The principles underlying the relations of the supreme with the local governments are explained in the chapter dealing with this question. Generally speaking, certain heads of revenue are divided equally between the provinces and the Imperial Government, and certain heads are enjoyed entirely by the local governments. These vary with different provinces, but broadly it may be said that the divided heads are land revenue, excise, stamps, income-tax and the incomes from the large irrigation works. The Provincial Governments take the whole of the receipts under forests and registration, and the income of the spending departments which they manage, such as ordinary public works, police, education, medical, courts and jails. The Government of India take the whole of the revenue accruing from the export of opium, salt, customs, mint, railways, posts and telegraphs, military receipts and tribute from Native States. As regards the expenditure, the Government of India are mainly responsible for the outlay relating to defence, railways, posts and telegraphs, interest on debt and home charges; and the provinces for charges connected with land revenue and general administration, forests, police, courts and jails, education and medical, whilst charges for irrigation and ordinary public works are common to both Imperial and Provincial. The second point is that a very large proportion of the revenue of the Government of India is derived not from taxation but from great State enterprises. It may be taken roughly that nearly two-thirds of the gross revenue is derived from sources other than taxation, such as the land revenue, opium, forests, tribute from Native States, posts and telegraphs, railways and irrigation. The third point is that the Secretary of State for India enters into very large financial transactions on behalf of the Indian Government in order to meet what are generically known as the Home Charges. These amount now to some eighteen millions sterling and are met by the Secretary of State selling for gold drafts in rupees on the Indian Treasuries known as the Council Bills or telegraphic transfers. These Home Charges were for many years erroneously described as a "drain" on India. A large proportion however goes to defray the interest on the sterling debt and the outlay on the purchase of stores and railway materials which cannot be acquired in India. The only part of the Home Charges which by any stretch of the imagination can be termed a "drain" is that which stands for civil and military officers on leave or pension, and here it is now recognised that India receives exceedingly good value for services rendered. One supplementary point which needs consideration is that the finances of India have been artificially inflated for several years by the unusual opium receipts. The Government of India sell opium for export to

China or the right of exporting opium to China; and in view of the approaching end of this trade inflated prices were given for opium for export. This led to large windfall surpluses which have made the Government finances appear more prosperous than they really are.

### Ten Years' Finance.

We may now turn to the financial results of the last ten years in pounds sterling.

	Revenue.	Expenditure.	Surplus.
	£	£	£
1902-3 ..	65,300,000	62,200,000	3,100,000
1903-4 ..	71,000,000	68,000,000	3,000,000
1904-5 ..	71,100,000	67,700,000	3,400,000
1905-6 ..	70,800,000	68,700,000	2,100,000
1906-7 ..	73,100,000	71,500,000	1,600,000
1907-8 ..	71,900,000	70,700,000	300,000
1908-9 ..	69,800,000	73,500,000	*3,700,000
1909-10 ..	74,600,000	74,000,000	600,000
1910-11 ..	80,300,000	76,900,000	3,400,000
1911-12 ..	82,835,750	78,895,416	3,940,334
1912-13 ..	86,985,300	83,623,400	3,361,900
1913-14 ..	82,321,800	81,010,600	†1,311,200

\*Deficit. †Estimated.

### Budget for 1913-14.

After this general statement we can consider the budget for the coming year. All Indian budgets are framed on the expectation of a normal season. But the character of the season depends almost entirely on the nature of an erratic monsoon rainfall; consequently in the words of an ex-Finance Minister, every Indian budget is a gamble in rain. If the rains are good then there will be a large surplus; if the rains fail, there will be a deficit. These conditions make close estimating in India impossible, and induce periodical large surpluses varied by deficits. In the current budget the opium surpluses disappear; the export to China has ceased, for all practical purposes. Apart from opium the prospects were bright when the estimates were framed, and the Finance Minister estimated a revenue of £ 82,322,000, and an aggregate expenditure of £ 83,850,000. Thus there is a difference of £ 1,528,000. This arises from the inclusion of provincial finance in the Imperial Budget. For several years very large sums have been allotted to the Provincial Governments from the opium surpluses for non-recurring expenditure on education and sanitation. These the Local Governments were unable to spend, owing to the delay in maturing their plans. Consequently all the provincial Exchequers are overflowing, and now that adequate plans have been made of expenditure, it is proposed to draw upon them during the current year to the extent of £ 2,839,200. If these anticipations are realised, the year will close with an Imperial surplus of £ 1,311,200.

The details of the budget are set out in the following table. As the manner in which the great heads of income like land revenue, railways, irrigation and customs are realised is described in separate articles (*q. v.*) they need not detain us here.

REVENUE.	Accounts, 1911-1912.	Revised Estimate, 1912-1913.	Budget Estimate, 1913-1914.
<b>Principal Heads of Revenue—</b>	<b>£</b>	<b>£</b>	<b>£</b>
Land Revenue .. .. .	20,764,697	22,244,900	21,399,000
Opium .. .. .	5,961,278	5,062,000	1,445,000
Salt .. .. .	3,391,212	3,336,700	3,405,300
Stamps .. .. .	4,815,120	5,003,800	5,231,500
Excise .. .. .	7,600,753	8,173,700	8,416,900
Customs .. .. .	6,468,567	6,984,600	6,862,800
Other Heads .. .. .	5,194,604	5,453,200	4,919,100
<b>TOTAL PRINCIPAL HEADS ..</b>	<b>54,205,240</b>	<b>55,351,700</b>	<b>51,680,500</b>
Interest .. .. .	1,448,741	1,463,000	1,287,300
Post Office .. .. .	2,134,279	2,259,500	2,360,800
Telegraph .. .. .	1,087,425	1,142,000	1,191,800
Mint .. .. .	367,100	532,000	240,600
Civil Departments .. .. .	1,238,131	1,295,300	1,296,300
Miscellaneous .. .. .	813,076	719,100	589,200
Railway: Net Receipts .. .. .	15,891,725	18,217,400	17,623,500
Irrigation .. .. .	3,980,052	4,362,900	4,403,900
Other Public Works .. .. .	326,924	300,900	286,900
Military Receipts .. .. .	1,313,057	1,316,600	1,361,000
<b>TOTAL REVENUE ..</b>	<b>82,835,750</b>	<b>86,985,300</b>	<b>82,321,800</b>
<b>EXPENDITURE.</b>			
Direct Demands on the Revenues .. ..	8,670,174	8,743,100	9,469,700
Interest .. .. .	2,037,735	1,807,900	1,310,000
Post Office .. .. .	2,008,470	2,036,400	2,057,200
Telegraph .. .. .	1,093,934	1,121,100	1,231,000
Mint .. .. .	116,507	142,300	103,700
Salaries and Expenses of Civil Departments..	10,466,166	10,722,900	10,434,500
Miscellaneous Civil Charges .. .. .	4,898,823	4,940,400	5,087,000
Famine Relief and Insurance .. .. .	1,000,000	1,000,000	1,000,000
Railways: Interest and Miscellaneous Charges .. .. .	12,103,955	12,601,300	13,071,200
Irrigation .. .. .	3,174,883	3,313,100	3,564,600
Other Public Works .. .. .	5,454,048	6,198,600	6,513,100
Military Services .. .. .	20,901,637	20,982,000	21,007,800
<b>TOTAL EXPENDITURE, IMPERIAL AND PROVINCIAL ..</b>	<b>77,926,332</b>	<b>79,604,100</b>	<b>83,849,800</b>
<b>Deduct—Portion of Provincial Expenditure defrayed from Provincial Balances ..</b>	<b>444,943</b>	<b>....</b>	<b>2,839,200</b>
<b>TOTAL EXPENDITURE CHARGED TO REVENUE</b>	<b>78,895,416</b>	<b>83,623,400</b>	<b>81,010,000</b>

**Allocation of Surpluses.**

Out of the Budget surplus the following allotments were made :—

- 2½ crores for non-recurring expenditure on education.
- 1½ crores for urban sanitation.
- 30 lakhs to Burma for communications.
- 20 lakhs to Assam for development.
- 1 crore in aid of general provincial resources.

The last mentioned grant was allocated at the rate of 12 lakhs to each of the larger provinces and 8 lakhs each for the smaller administrations. It is to be devoted to such schemes as each Local Government may deem to be most necessary in view of varying and special requirements. The object of making these allotments was to place the Provinces in possession of such substantial sums that they would be able to make out and adhere to well considered programmes of development.

In the current budget the Finance Minister found himself able, in spite of the loss of the opium revenue, to avoid the imposition of new taxation, to maintain the existing standard of expenditure, and to provide substantial contributions to meet the ever-growing needs of the country. One crore was allotted for recurring expenditure on education and sanitation, distributing 85 lakhs to the Major Provinces, assigning 7 lakhs as Imperial expenditure, and retaining a reserve of 8 lakhs. Ten lakhs were added to the provision for agricultural expenditure; 10 lakhs were allotted for medical relief; and 79½ lakhs, or £ 530,000 were allocated for the abolition of provincial cesses to enable Local Governments to forego the amounts which were appropriated for Provincial use from the cess on land, thus permitting the funds of local bodies to be increased by that amount.

**Capital Expenditure.**

Reference has been made to the fact that the Secretary of State conducts large financial operations on behalf of the Government of India. The manner in which this is done has formed the subject of sharp controversy, and is under inquiry by the Royal Commission on Indian Currency and Finance. (*q. v.*) Briefly, the criticism is that the Secretary of State has heaped up huge balances in London in excess of his requirements (£18 millions, against a customary £4 millions) by selling Council Bills beyond his needs. It is proposed in the current year to reduce the balances in London and India by no less a sum than £11 millions, by meeting capital expenditure from balances rather than from loans. During the year the capital requirements of the Government of India are put at £19½ millions for irrigation, railways and the new capital at Delhi. By drawing so largely on the balances, this capital expenditure will be met by direct Government borrowings in India of only £2

millions. There will be no addition to the sterling debt. The loan transactions of India for the past four years are a striking index to the economic strength of the country. India borrows only for remunerative expenditure on railways and irrigation, if we exclude the exceptional circumstances of the new Delhi. The net result of the loan transactions, taking into account the discharge of temporary debt, and including both the direct borrowings and the capital raised through the railway companies, is as follows :—

In 1909-10 there was a net addition of £13 millions.

In 1910-11 there was a net addition of £6½ millions.

In 1911-12 there was a net addition of £1½ millions.

In 1912-13 a net decrease of £1 million.

**Profit and Loss.**

On March 31, 1913, the debt of India amounted to £274,402,873—namely rupee debt, converted into sterling at 1s. 4d. the rupee, £95,223,680, and sterling debt £179,179,193. There were also other obligations of the Government of India, including savings banks balances, judicial and departmental deposits, balances and service funds, etc., amounting to £29,277,915, and the various railway annuities, representing at present an annual charge of £3,357,600. Up to the same date the Government of India had devoted £143,904,807 to the construction of railways and £37,646,800 to the construction of irrigation works. It had purchased from guaranteed companies (in some cases by cash payments, in others by annuities, and in one case by the direct issue of India stock to the company) nine railways, on which, at the time of purchase, £108,092,386 had been spent from capital raised by the companies. Its advances to railway companies stood at £11,272,232, and it had lent £12,080,234 net to Native States, corporations, agriculturists, etc. Other assets were the Gold Standard Reserve, consisting of £4,000,000 held in rupees in India, sterling securities of a market value of £15,945,669, £1,620,000 in gold at the Bank of England, and £1,005,064 in cash at short notice in London; the cash balances in India, £19,293,333; and the cash balances in England, £8,784,206.

The new assignments made for education in 1913-14, added to those (amounting to £373,100) which were made in 1912-13, bring up to £695,400 the total provision up to date, from special grants made by the Government of India, for annual expenditure in pursuance of the statement made at the Delhi Durbar of December 12, 1911. The capital expenditure on permanent works at the new capital at Delhi incurred or estimated to be incurred is as follows :—1911-12, £5,000; 1912-13, £112,000; 1913-14, £1,333,000.

**THE LAND REVENUE.**

The principle underlying the Land Revenue system in India has operated from time immemorial. It may be roughly formulated thus—the Government is the supreme landlord and the revenue derived from the land is equivalent to rent. On strictly theoretical grounds, ex-

ception may be taken to this statement of the case. It serves, however, as a substantially correct description of the relation between the Government and the cultivator. The former gives protection and legal security. The latter pays for it according to the value of his



holding. The official term for the method by which the Land Revenue is determined is "Settlement." There are two kinds of settlement in India—Permanent and Temporary. Under the former the amount of revenue has been fixed in perpetuity, and is payable by the landlord as distinguished from the actual cultivator. The Permanent Settlement was introduced into India by Lord Cornwallis at the close of the eighteenth century. It had the effect intended of converting a number of large revenue farmers in Bengal into landlords occupying a similar status to that of landowners in Europe. The actual cultivators became the tenants of the landlords. While the latter became solely responsible for the payment of the revenue, the former lost the advantage of holding from the State. This system has prevailed in Bengal since 1795 and in the greater part of Oudh since 1850. It also obtains in certain districts of Madras.

#### Temporary Settlements.

Elsewhere the system of Temporary Settlements is in operation. At intervals of thirty years, more or less, the land in a given district is subjected to a thorough economic survey, on the basis of the trigonometrical and topographic surveys carried out by the Survey Department of the Government of India. Each village area, wherever the Temporary Settlement is in vogue, has been carefully mapped, property-boundaries accurately delineated, and records of rights made and preserved. Under the Permanent Settlement in Bengal the occupant does not enjoy these advantages. The duty of assessing the revenue of a district is entrusted to Settlement Officers, members of the Indian Civil Service specially delegated for this work. The duties of a Settlement Officer are thus described in Strachey's *India* (revised edition, 1911):—"He has to determine the amount of the Government demand, and to make a record of all existing rights and responsibilities in the land. He has a staff of experienced subordinates, almost all of whom are natives of the country, and the settlement of the district assigned to him is a work which formerly required several years of constant work. The establishment of agricultural departments and other reforms have however led to much simplification of the Settlement Officer's proceedings, and to much greater rapidity in the completion of the Settlements. All the work of the settlement officer is liable to the supervision of superior officers, the assessments proposed by him require the sanction of the Government before they become finally binding; and his judicial decisions may be reviewed by the Civil Courts. It is the duty of the settlement officer to make a record of every right which may form the subject of future dispute, whether affecting the interests of the State or of the people. The intention is to alter nothing, but to maintain and place on record that which exists."

#### The Two Tenures.

Under the Temporary Settlement land tenures fall into two classes—peasant-holdings and landlord-holdings, or *Ryotwari* and *Zemindari* tenures. Broadly speaking, the difference between the two in a fiscal sense is that in *Ryotwari* tracts the *ryot* or cultivator pays the revenue direct; in *Zemindari* tracts the land-

lord pays on a rental assessment. In the case of the former, however, there are two kinds of *Ryotwari* holdings—those in which each individual occupant holds directly from Government, and those in which the land is held by village communities, the heads of the village being responsible for the payment of revenue on the whole village area. This latter system prevails in the North. In Madras, Bombay, Burma and Assam *ryotwari* tenure is on an individual basis, and the Government enters into a separate agreement with every single occupant. The basis of assessment on all classes of holdings is now more favourable to the cultivator than it used to be. Formerly what was believed to be a fair average sum was levied on the anticipated yield of the land during the ensuing period of settlement. Now the actual yield at the time of assessment alone is considered, so that the cultivator gets the whole of the benefit of improvements in his holding subsequently brought about either by his own enterprise or by "unearned increment." The Government, however, may at a new settlement re-classify a holding so as to secure for itself a fair share in an increment that may have resulted from public works in the vicinity, such as canals and railways, or from a general enhancement of values. But the principle that improvements effected by private enterprise shall be exempt from assessment is now accepted by the Government and provided for in definite rules.

#### Incidence of the Revenue.

The incidence of the revenue charges varies according to the nature of the settlement, the class of tenure, and the character and circumstances of the holding. Under the Permanent Settlement in Bengal Government derive rather less than £3,000,000 from a total rental estimated at £12,000,000. Under Temporary Settlements, 50 per cent. of the rental in the case of *Zemindari* land may be regarded as virtually a maximum demand. In some parts the impost falls as low as 35 and even 25 per cent. and only rarely is the proportion of one-half the rental exceeded. In regard to *Ryotwari* tracts it is impossible to give any figure that would be generally representative of the Government's share. But one-fifth of the gross produce is the extreme limit, below which the incidence of the revenue charge varies greatly. About twelve years ago the Government of India were invited in an influential signed memorial to fix one-fifth of the gross produce as the maximum Government demand. In reply to this memorial and other representations the Government of India (Lord Curzon being Viceroy) issued a Resolution in defence of their Land Revenue Policy. In it it was stated that "under the existing practice the Government is already taking much less in revenue than it is now invited to exact" and "the average rate is everywhere on the down grade." This Resolution, together with the statements of Provincial Governments on which it was based, was published as a volume; it is still the authoritative exposition of the principles controlling the Land Revenue Policy of the Government of India. In a series of propositions claimed to be established by this Resolution the following points are noted—(1) In *Zemindari* tracts

progressive moderation is the key-note of the Government's policy, and the standard of 50 per cent. of the assets is more often departed from on the side of deficiency than excess; (2) in the same areas the State does not hesitate to interfere by legislation to protect the interests of the tenants against oppression at the hands of the landlords; (3) in *Ryotwari* tracts the policy of long-term settlements is being extended, and the proceedings in connection with new settlements simplified and cheapened; (4) local-taxation (of land) as a whole is neither immoderate nor burdensome; (5) over-assessment is not, as alleged, a general or widespread source of poverty, and it cannot fairly be regarded as a contributory cause of famine. At the same time the Government laid down as principles for future guidance—(a) large enhancements of revenue, when they occur, to be imposed progressively and gradually, and *net per saltum*; (b) greater elasticity in revenue collection, suspensions and remissions being allowed according to seasonal variations and the circumstances of the people; (c) a more general resort to reduction of assessments in cases of local deterioration.

#### Protection of the Tenants.

In regard to the second of the five propositions noted above, various Acts have been passed from time to time to protect the interests of tenants against landlords, and also to give greater security to the latter in possession of their holdings. The Oudh Tenancy Act of 1886 placed important checks on enhancement of rent and eviction, and in 1900 an Act was passed enabling a landowner to entail the whole or a portion of his estate, and to place it beyond the danger of alienation by his heirs. The Punjab Land Alienation Act, passed at the instance of Lord Curzon, embodied the principle that it is the duty of a Government which derives such considerable proportion of its revenue from the land, to interfere in the interests of the cultivating classes. This Act greatly restricted the credit of the cultivator by prohibiting the alienation of his land in payment of debt. It had the effect of arresting the process by which the Punjab peasantry were becoming the economic serfs of money-lenders. A good deal of legislation affecting land tenure has been passed from time to time in other provinces, and it has been called for more than once in Bengal, where under the Permanent Settlement (in

the words of the Resolution quoted above), "so far from being generously treated by the Zemindars, the Bengal cultivator was rack-rented, impoverished, and oppressed."

#### Government and cultivator.

While the Government thus interferes between landlord and tenant in the interests of the latter, its own attitude towards the cultivator is one of generosity. Mention has already been made of the great advantage to the agricultural classes generally of the elaborate systems of Land Survey and Records of Rights carried out and maintained by Government. In the Administration Report of Bombay for 1911-12, it is stated:—"The Survey Department has cost the State from first to last many lakhs of rupees. But the outlay has been repaid over and over again. The extensions of cultivation which have occurred (by allowing cultivators to abandon unprofitable lands) have thus been profitable to the State no less than to the individual; whereas under a *Zemindari* or kindred system the State would have gained nothing, however much cultivation had extended throughout the whole of 30 years' leases." On the other hand, the system is of advantage to the *ryots* in reducing settlement operations to a minimum of time and procedure. In the collection of revenue the Government consistently pursues a generous policy. In times of distress suspensions and remissions are freely granted after proper inquiry.

The amount of gross revenue raised on the land is about £21,000,000 *per annum*, out of a total from all sources of about £75,000,000 *per annum*. This compares very favourably with the £34,000,000 of land revenue recorded as having been raised annually from a smaller empire by Aurangzeb.

The literature of the subject is considerable. The following should be consulted by readers who require fuller information:—"Land Revenue Policy of the Indian Government," 1902 (Superintendent of Government Printing); Baden Powell's "Land Systems of British India"; Sir John Strachey's "India, its Administration and Progress 1911," (Macmillan & Co.); M. Joseph Chailley's "Administrative Problems of British India" (Macmillan & Co., 1910), and the Annual Administration Reports of the Respective Provincial Governments.

#### EXCISE.

The Excise revenue in British India is derived from the manufacture and sale of intoxicating liquors, hemp drugs and opium. It is a commonplace amongst certain sections of temperance reformers to represent the traffic in intoxicating liquors as one result of British rule. There is, however, abundant evidence to show that in pre-British days the drinking of spirituous liquors was commonly practised and was a source of revenue.

The forms of intoxicating liquor chiefly consumed are country spirit; fermented palm juice; beer made from grain; country brands of rum, brandy, etc., locally manufactured malt beer and imported wine, beer and spirits. Country spirit is the main source of revenue, except

in the Madras Presidency, and yields about two-thirds of the total receipts from liquors. It is usually prepared by distillation from the Mahuva flower, molasses and other forms of unrefined sugar, fermented palm juice and rice. The British inherited from the Native Administration either an uncontrolled Out-Still System or in some cases a crude Farming System and the first steps to bring these systems under control were the limitation of the number of shops in the area farmed, and the establishment of an improved Out-Still System under which the combined right of manufacture and sale at a special shop was annually granted. This of course was a kind of control, but it only enabled Government to impose haphazard taxation

on the liquor traffic as a whole, by means of vend fees. It did not enable Government to graduate the taxation accurately on the still-head duty principle nor to insist upon a standard of purity or a fixed strength of liquor. Moreover for political and other reasons the extent of control could not at first be complete. There were tribes of aborigines who regarded the privilege of making their own liquor in their private homes as a long established right; and who believed that liquor poured as libations to their god should be such as had been made by their own hands. The introduction of any system amongst those peoples had to be worked very cautiously. Gradually, as the Administration began to be consolidated, the numerous native pot-stills scattered all over the country under the crude arrangements then in force began to be collected into Central Government enclosures called Distilleries, thus enabling Government to perfect its control by narrowing the limits of supervision; and to regularize its taxation by imposing a direct still-head duty on every gallon issued from the Distillery. Under Distillery arrangements it has also been possible to regulate and supervise thoroughly the manufacture of liquor and its disposal subsequent to its leaving the Distillery by means of a system of transport passes, establishment supervision, improved distribution and vend arrangements.

#### Various Systems.

The Out-Still System may be taken to include all systems prior in order of development to the imposition of Still-head duty. Briefly stated the stages of development have been—First: farms of large tracts; Second: farms of smaller areas; Third: farms of the combined right to manufacture and sell at particular places without any exclusive privilege over a definite area; Fourth: farms of similar right subject to control of means and times for distilling and the like. The Provincial Governments have had to deal with the subject in different ways suited to local conditions, and so the order of development from the lower forms of systems to the higher has not been always everywhere identical in details. Yet in its essence and main features the Excise Administration in most provinces of British India has progressed on uniform lines, the key note lying in attempts, where it has not been possible to work with the fixed duty system in its simplest form, to combine the farming and fixed duty systems with the object of securing that every gallon of spirit should bear a certain amount of taxation. The Out-Still System has in its turn been superseded by either the Free-supply system or the District Monopoly system. The Free-supply system is one of free competition among the licensed distillers in respect of manufacture. The right of vend is separately disposed of. The District monopoly system on the other hand is one in which the combined monopoly of manufacture and sale in a district is leased to a farmer subject to a certain amount of minimum still-head duty revenue in the monopoly area being guaranteed to the State during the term of the lease.

The recommendations of the Indian Excise Committee of 1905-06 resulted in numerous reforms in British India, one of them being

that the various systems have been or are gradually being superseded by the Contract Distillery System under which the manufacture of spirit for supply to a district is disposed of by tender, the rate of still-head duty and the supply price to be charged are fixed in the contract and the right of vend is separately disposed of. This is the system that now prevails over the greater portion of British India. The other significant reforms have been the revision of the Provincial Excise Laws and regulations, and the conditions of manufacture, vend, storage and transport, an improvement in the quality of the spirit, an improved system of disposal of vend licences, reductions and re-distributions of shops under the guidance and control of local Advisory Committees, and gradual enhancement of taxation with a view to checking consumption.

The average incidence of taxation per proof gallon of distillery spirit amounted in 1911-12 to Rs. 5-2-6, Rs. 4-8-6 was derived from still-head duty and Rs. 0-10-0 from vend fees. The average consumption per 1000 of the population in distillery areas varies from 23 gallons in Eastern Bengal to 173 gallons in the Bombay Presidency Proper (1910-11).

Sap of the date, palmyra, and cocoanut palms, called toddy, is used as a drink either fresh or after fermentation. In Madras and Bombay the revenue is obtained from a fixed fee on every tree from which it is intended to draw the liquor. In Bengal and Burma the sale of shop licenses is the sole form of taxation. Country brands of rum, and so called brandies and whiskies, are distilled from grape juice, etc. The manufacture is carried out in private distilleries in various parts of India. A number of breweries has been established, mostly in the hills, for the manufacture of a light beer for European and Eurasian consumption. The uniform fee of 3 annas per gallon is levied all over India at the time of issue.

Foreign liquor is subject to an import duty at the tariff rates, the most important of which is Rs. 9-6-0 per proof gallon on spirit and 3 annas per gallon on beer. It can only be sold under a license.

DRUGS.—The narcotic products of the hemp plant consumed in India fall under three main categories: namely, ganja or the dry flowering tops of the cultivated female hemp plant; charas, or the resinous matter which forms an active drug when collected separately; and bhang, or the dried leaves of the hemp plant whether male or female cultivated or uncultivated. The main features of the existing system are restricted cultivation under supervision, storage in Bonded Warehouses, payment of a quantitative duty before issue, retail sale under licenses and restriction on private possession. Licenses to retail all forms of hemp drugs are usually sold by auction.

OPIMUM.—Opium is consumed in all provinces in India. The drug is commonly taken in the form of pills; but in some places, chiefly on social and ceremonial occasions, it is drunk dissolved in water. Opium smoking also prevails in the City of Bombay and other large towns. The general practice is to sell opium from the Government Treasury, or a Central Warehouse, to licensed vendors. The right of retail to the public is sold by annual auction to one or several sanctioned shops.

## SALT.

The salt revenue was inherited by the British Government from Native rule, together with a miscellaneous transit dues. These transit dues were abolished and the salt duty consolidated and raised. There are four great sources of supply; rock salt from the Salt range and Kohat Mines in the Punjab; brine salt from the Sambhar Lake in Rajputana, salt brine condensed on the borders of the lesser Rann of Cutch; and sea salt factories in Bombay, Madras and at the mouth of the Indus.

The Salt Range mines contains an inexhaustible supply. They are worked in chambers excavated in salt strata, some of which are 250 feet long, 45 feet wide and 200 feet high. The Rajputana supply chiefly comes from the Sambhar Lake where brine is extracted and evaporated by solar heat. In the Rann of Cutch the brine is also evaporated by solar heat and the product is known as Baragara salt. In Bombay and Madras sea water is let into shallow pans on the sea-coast and evaporated by solar heat and the product sold throughout India. In Bengal the damp climate together with the large volume of fresh water from the Ganges and the Brahmaputra into the Bay of Bengal render the manufacture of sea salt difficult and the bulk of the supply,

both for Bengal and Burma, is imported from Liverpool, Germany, Aden, Bombay and Madras.

Broadly, one-half of the indigenous salt is manufactured by Government Agency, and the remainder under license and excise systems. In the Punjab and Rajaputana the salt manufactories are under the control of the Northern India Salt Department, a branch of the Finance Department. In Madras and Bombay the manufactories are under the supervision of Local Governments. Special treaties with Native States permit of the free movement of salt throughout India, except from the Portuguese territories of Goa and Damaun, on the frontiers of which patrol lines are established to prevent the smuggling of salt into British India.

From 1888-1903 the duty on salt was Rs. 2-8 per maund of 82 lbs. In 1903, it was reduced to Rs. 2; in 1905 to Rs. 1-8 and in 1907 to Re. 1 at which figure it now stands. The successive reductions in duty have led to a largely increased consumption, the figures rising by 25 per cent. between 1903-1908. To illustrate the growth of consumption, in 1902-03, with a tax of Rs. 2-8-0 per maund, the revenue was 838 lakhs, for 1913-14 with a duty of Re. 1, the estimated revenue is 467 lakhs. The consumption for the coming year is put down at 47,996,000 maunds.

## CUSTOMS.

The Indian fiscal system consists of a moderate tariff for revenue purposes only. There is a general import duty of five per cent. *ad valorem* on all goods imported by sea, with special conditions for textiles and a large free list. Export duties are levied only on rice, at the rate of three annas per maund of 82 pounds. The export is principally from Burma.

The import duties have varied from time to time according to the financial condition of the country. Before the Mutiny they were five per cent., in the days of financial stringency which followed they were raised to 10 and in some cases 20 per cent. In 1875 they were reduced to five per cent., but the opinions of Free Traders, and the agitation of Lancashire manufacturers who felt the competition of the Indian Mills, induced a movement which led to the abolition of all customs dues in 1882. The continued fall in exchange compelled the Government of India to look for fresh sources of revenue and in 1894 five per cent. duties were reimposed, yarns and cotton fabrics being excluded. Continued financial stringency brought piece-goods within the scope of the tariff, and after various expedients the demands of Lancashire were satisfied by a general duty of 3½ per cent. on all woven goods—an import duty on goods by sea, an excise duty on goods produced in the country. The products of the hand-loom are excluded. These excise duties are intensely unpopular in India, for reasons set out in the special article dealing with the subject. In 1910-11, in order to meet the deficit threatened by the loss of the revenue on opium exported to China, the silver duty was raised from 5 per cent. to 4d. an ounce; and higher duties levied on petroleum, tobacco, wines, spirits, and beer. These were estimated to produce £ 1 million annually.

The principal exemptions from the tariff are food grains, machinery, railway material and coal. Iron and steel pay a nominal duty of one per cent.

The Customs revenue for the current year is estimated at Rs. 10,29,42,000, or £8,862,800.

The Customs Department is administered by an Imperial Customs Service responsible to the Imperial Government in the Department of Commerce and Industry, but acting through the Local Governments. The senior Collectors are Covenanted Civilians specially chosen for this duty; the subordinates are recruited in India and in England.

## Income Tax.

The income tax was first imposed in India in 1860, in order to meet the financial dislocation caused by the Mutiny. It was levied at the rate of four per cent. or a little more than 9½ d. in the pound on all incomes of five hundred rupees and upwards. Many changes have from time to time been made in the system, and the present schedule was consolidated in the Act of 1886. This imposed a tax on all incomes derived from sources other than agriculture which were exempted. On incomes of 2,000 rupees and upwards it fell at the rate of five pies in the rupee, or about 6½ d. in the pound; on incomes between 500 and 2,000 rupees at the rate of four pies in the rupee or about 5d. in the pound. In March 1903 the minimum taxable income was raised from 500 to 1,000 rupees. The tax is paid by about 300,000 people, and although it is unpopular chiefly because it was nominally only temporarily imposed, and because it falls most heavily on those with fixed incomes, there is no likelihood of its repeal. The yield of assessed taxes is Rs. 2,63,72,000, or £1,768,200.

## THE DEBT OF INDIA.

The registered debt of India consists of rupee loans raised in India and sterling loans raised in England. At the end of 1910-11 the rupee loans, bearing interest, amounted to Rs. 37,92,40,200 (=£91,049,347) and the sterling debt to £177,981,751. There were also at the end of the year Rs. 17,31,055 (=£115,464) and £16,584 of the rupee and sterling loans, respectively not bearing interest, chiefly representing unconverted paper.

When the trading charter of the East India Company expired in 1835, the rupee debt was Rs. 332·95 millions. Fifteen years later, in 1850-51, the debt reached Rs. 453·30 millions, and it stood at almost exactly that sum in the year preceding the mutiny of 1857. That convulsion caused a large increase in the rupee debt which stood at Rs. 635·55 millions in 1859-60, the year following the suppression of the revolt. The debt then gradually rose to Rs. 697·57 millions by 1874-75, and another large increase occurred in the succeeding decade, due to the great famine of 1877-78 and to the military operations in Afghanistan which followed the famine. By 1883-84 the rupee debt rose to Rs. 931·25 millions. There was then a further increase to Rs. 980·4 millions in 1887-88, to Rs. 1,007·48 millions in 1888-89, and to Rs. 1,052·8 millions in 1893-94. A three per cent. loan was raised in July 1896, and the debt stood at Rs. 1,082·12 millions at the end of 1896-97 and increased to Rs. 1,191·99 millions in 1903-04, to Rs. 1,258·75 millions in 1905-06, to Rs. 1,366·67 millions in 1909-10, and to Rs. 1,379·24 millions in 1910-11.

### Growth of Debt.

The interest-bearing sterling debt was very small until the mutiny year, but the increase was rapid after that. As in India, the rate of interest on the sterling debt has been gradually reduced from 4, 4½, and 5 per cent. to 2½, 3, and 3½ per cent. respectively. At the end of 1910-11 proportions of the debt held at these rates are £11,892,207 at 2½ per cent., £60,724,530 (including 3 per cent.), India stock of the nominal value of £3,000,000 issued in August 1900, £2,009,500 issued in 1901-02, £1,500,000 issued in May 1902, £1,500,000 issued in 1903-04, £2,500,000 issued in 1904-05, £12,089,146 issued in 1905-06, and £2,000,000 issued in 1906-07 at 3 per cent. and £85,511,748 at 3½ per cent. In May 1907 a 3½ per cent. sterling loan of £3,500,000 was raised and in January 1908 a further 3½ per cent. loan of £5,000,000 was raised towards providing for railway capital expenditure of 1908-09 and for the discharge of certain Bombay, Baroda and Central India Railway debentures. Similarly in February 1909, a loan of £7,500,000 and in January 1910 a further loan of £7,500,000 were issued at the same rate of interest. In October 1910, 3½ per cent. India Bonds for £4,000,000 were issued for the discharge of the Madras and Indian Midland Railway debentures and in March 1911 a new 3½ per cent. sterling loan of £3,500,000 was issued to provide funds for capital expenditure in 1911-12.

### Railway Expenditure.

A large proportion both of the sterling and of

the rupee debt was incurred in connection with the construction of railways and other public works. Considerable additions to the rupee and sterling debt were made in the two years 1896-97 and 1897-98 in consequence of famine, plague, war, and the prosecution of railway extension, and to the sterling debt in 1900 and subsequent years for the purchase of the G. I. P. Railway, the discharge of its debentures, and advances of Indian Railway Companies. In addition to the loans raised during 1907-08 the Secretary of State incurred liability in respect of £2,144,800 debentures of the Madras Railway Company on the purchase of the undertaking on the 31st December 1907. At the end of 1910-11 the total registered debt in India and England was distributed in the proportion of 15 and 85 per cent. between Ordinary Debt (£40,426,082 with interest £1,606,587) and Debt incurred for Railways and Irrigation Works (£229,637,063 with interest £7,388,095).

### Interest.

The interest on the rupee debt was at the rate of six per cent. in 1822, and the debt bearing this rate was not finally paid off until 1858-59. Meanwhile the Government borrowed, from 1823 until 1852-53, at five per cent. and from 1824 (but in a small way until 1835) at four per cent. The bulk of the five per cent. debt was converted to four per cent. in 1854, but the shock to the credit of the State caused by the mutiny necessitated more borrowing at the higher rate of five per cent. and that loan was not finally extinguished until 1871. Meanwhile the Government were compelled to borrow at 5½ per cent. in 1859, and this 5½ per cent. loan was not closed until 1878-79. A small sum was borrowed at 4½ per cent. in 1856-57, and the debt at this rate of interest was largely increased in 1871 by the conversion of the 5½ per cent. loan. By 1878-79 practically the whole rupee debt bore interest at 4½ and 4 per cent. Rs. 151·48 millions at 4½, and Rs. 613·38 millions at 4 per cent. The 4½ per cent. loans were all converted to 4 per cent. by 1893, save for a sum of Rs. 10 millions, being a loan from the Maharaja Holkar on account of the Indore State Railway, which is not convertible until about 1970. In the same year a small loan of Rs. 35·5 millions was raised at 3½ per cent. and in the following year the bulk of the 4 per cent. loans was converted to the rate of 3½ per cent. In 1896-97 a new loan of Rs. 40 millions was raised at 3 per cent. On the 4th July 1900 a loan of Rs. 30 millions was raised at 3½ per cent. and this was followed by other loans, at the same rate of interest, of Rs. 10 millions on the 14th August 1901, Rs. 15 millions on the 9th July 1902, Rs. 20 millions on the 22nd July 1903, Rs. 30 millions on the 13th July 1904, Rs. 40 millions on the 2nd August 1905, Rs. 45 millions on the 31st July 1906, Rs. 25 millions on the 17th July 1907, Rs. 20 millions on the 4th August 1908, Rs. 25 millions on the 28th July 1909 and Rs. 15 millions on the 20th July 1910. At the end of 1910-11, Rs. 1,248·42 millions bore interest at 3½ per cent. Rs. 85·32 millions at 3 per cent. and Rs. 35·5 millions at 4 per cent.

Of the rupee debt it is estimated 1910-11 that including Rs. 137·3 millions held in London, Rs. 728·6 millions were held by Europeans at the end of 1910, and Rs. 652·4 millions by Indians, the holdings by Indians being 47 per cent. of the whole debt. It should be noted, however, that the invested currency reserve is included in the sum held by Europeans. No portion of the sterling debt is held by Indians.

At the close of 1912-13 the debt may be placed at £280,000,000, of this about £42,000,000 is ordinary debt (*i.e.*, debt not represented by tangible assets) and £238,000,000 debt incurred for railways and irrigation. The net unproductive debt is actually £12½ millions (1914).

AMOUNT OF THE RUPEE AND STERLING DEBT AND OF THE INTEREST THEREON, ANNUAL INCREASE OR REDUCTION OF THE DEBT;  
AND THE PROPORTION OF THE RUPEE DEBT HELD IN LONDON, FROM 1820-25 TO 1912-13.

	Registered debt in India.	Registered debt in London.	Interest payable.	Amount borrowed and paid off each year (Borrowed +; paid off—)		Proportion of the registered rupee debt held in London on 31st March.
				In England.		
				In India.	In England.	
Rs.	£	Rs.	£	Rs.	(a)	
1820-21	27,24,77,630	5,762,888	1,63,15,400	253,247	—26,73,970	15,38,06,930
1830-31	33,12,96,680	3,750,479	1,74,19,770	93,377	+75,52,710	16,24,51,720
1840-41	39,47,65,040	1,756,992	1,35,37,050	59,556	+1,15,89,400	17,64,70,910
1850-51	45,42,87,550	3,920,592	2,12,39,750	1,36,182	+1,00,72,750	13,56,38,630
1860-61	63,44,58,100	28,496,917	2,88,34,460	1,249,332	—10,05,920	13,04,77,110
1861-62	63,42,08,450	32,116,217	2,88,32,440	1,457,374	+2,49,650	13,27,22,050
1862-63	63,42,11,060	31,860,017	2,89,95,320	1,430,765	+40,02,610	14,05,71,800
1863-64	63,40,35,320	26,332,517	2,89,08,180	1,209,621	—41,72,710	15,45,77,080
1864-65	63,36,66,840	26,146,017	2,88,00,840	1,233,165	+1,15,89,400	14,21,01,660
1865-66	62,38,10,770	26,146,017	2,84,13,900	1,271,230	—3,71,480	15,78,70,170
1866-67	62,97,84,230	28,559,917	2,87,13,200	1,402,540	+8,56,070	20,14,82,760
1867-68	63,76,50,020	29,718,417	2,91,57,860	1,448,375	+39,73,060	20,52,80,670
1868-69	63,41,06,910	31,218,917	2,88,87,270	1,463,916	+78,63,790	20,26,31,450
1869-70	63,59,34,220	35,217,617	2,98,17,500	1,629,868	—55,63,110	
1870-71	66,80,96,570	37,652,617	3,04,56,310	1,726,265	+2,78,27,310	
1871-72	67,96,59,420	39,012,617	2,98,08,300	1,781,618	+1,71,62,350	
1872-73	66,45,52,690	39,012,617	2,89,20,500	1,831,018	+1,15,92,850	
1873-74	66,41,72,910	41,117,617	2,89,30,060	1,867,121	—1,31,03,730	
1874-75	69,84,99,590	48,597,033	3,09,35,320	2,165,364	+4,10,780	
1875-76	72,77,29,810	49,797,033	3,15,20,180	2,212,582	+3,43,26,680	
1876-77	71,92,31,260	53,397,033	3,10,98,710	2,236,271	+2,92,30,220	
1877-78	74,95,45,200	59,677,033	3,22,68,610	2,436,271	+84,98,550	
1878-79	78,83,89,260	58,029,117	3,25,68,610	2,607,472	—3,03,13,940	
1879-80	82,87,25,090	68,855,556	3,41,76,560	2,881,555	+3,88,43,060	
1880-81	85,96,97,460	71,429,133	3,57,92,700	1,937,566	+4,03,35,830	
				2,546,478	+3,08,72,370	

(c) No information.

Rs.  
15,38,06,930  
16,24,51,720  
17,64,70,910  
13,56,38,630  
13,04,77,110  
13,27,22,050  
14,05,71,800  
15,45,77,080  
14,21,01,660  
15,78,70,170  
17,14,52,760  
20,52,60,670  
20,26,31,450

## STERLING DEBT.

Debt Bearing Interest.	Capital of Debt.		Rate %	Annual Interest payable.	
	31st March 1912	31st March 1913		31st March 1912	31st March 1913
India 3½ per cent. Stock .. ..	88276210	91276210	3½	3089667	3104667
India 3 per cent. Stock .. ..	66724530	66180596	3	2001735	1994417
India 2 per cent. Stock .. ..	11892206	11806336	2½	297305	295158
India Bonds .. ..	3500000	3000000	3½	122500	105000
India Bills .. ..	4500000	Nil.	Various	133704	Nil.
East India Railway Debenture Stock ..	1435650	1435650	4½	64604	64604
Eastern Bengal Ry. Debenture Stock ..	318666	318666	4	13946	13946
South India Ry. Debentures Stock ..	425000	425000	4½	19125	19125
G. I. P. Railway Debenture Stock ..	2701450	2701450	4	108058	108058
Madras Railway Debentures .. ..	170000	170000	3½	6375	6375
Madras Railway Debentures .. ..	249700	Nil.	3½	8115	Nil.
Indian Midland Ry. Debentures ..	421200	421200	4	16848	16848
Do. Do. .. ..	645000	Nil.	3½	21187	Nil.
Do. Do. .. ..	407500	407500	3½	14262	14262
Do. Do. .. ..	1272000	690000	3½	41369	22125
	182970012	179162608			
Debt not bearing Interest—					
India 5 per cent. Stock .. ..	9305	9305			
India 4 per cent. Stock .. ..	7278	7278			
	182986595	179179191		5961800	5854885

## INDIAN RAILWAY ANNUITIES.

	31st March 1912.	31st March 1913.
East Indian Railway		
Annuity terminating in 1953 .. ..	850537	850537
Interest lieu of deferred annuity .. ..	262000	262000
Eastern Bengal Railway Annuity terminating in 1957 ..	116850	116850
Schudt Punjab & Delhi Railway Annuity terminating in 1958	371361	371361
G. I. P. Railway Annuity terminating in 1948 .. ..	1268516	1268516
Madras Railway Annuity terminating in 1956 .. ..	488381	488381
	3357645	3357645

## THE INDIAN MINTS.

The Mint in Calcutta dates from the end of the 17th century. The present building, designed by Major N. W. Forbes, was opened in 1831, the central portion being held to be "a copy, on half dimensions, of the temple of Minerva at Athens." The Copper Mint, to the north-east of the Silver Mint, was opened in 1865.

*Mint Master*, Lt.-Col. W. G. R. Cordue, R.E.  
*Deputy Mint Master*, Capt. G. H. Willis, M.V.O., R.E.

*Assay Master*, Lieut.-Col. J. J. Bourke, I.M.S.  
*Deputy Assay Master*, Lieut.-Col. F. T. C. Hughes, I.A., F.C.S.

**The Bombay Mint**—The first Mint established in Bombay, in 1670, was for the coinage of

"rupees, pies and bhyruks," authority for its working being granted by letters patent. The erection of the present Mint was sanctioned by the East India Company in 1823, and was designed by Major John Hawkins of the Bombay Engineers. The cost of construction was estimated at 36 lakhs.

*Mint Master*, Major A. L. C. McCormick, R.E.  
*Assistant Mint Master*, Mr. A. E. B. Gordon.  
*Assay Master*, Lt.-Colonel J. Lloyd Thomas Jones, I.M.S.

*Deputy Assay Master*, Captain H. B. Drake, I.M.S.

During the year 1911-1912 gold to the value of Rs. 27,12,43,693 was tendered at the two Mints.

The Silver coinage for the year 1911-12 was as follows:—

	Calcutta.	Bombay.	Total.
	Value in Rs.	Value in Rs.	Value in Rs.
Rupees .. .. .	1,28,26,937	1,16,81,687	2,45,08,624
Half-Rupies .. .. .	11,46,422	2,92,715	14,39,137
Quarter Rupees .. .. .	5,81,199	2,92,046	8,53,245
One-Eighth Rupees .. .. .	9,65,553	3,07,761	12,73,314
Total .. .. .	1,55,00,111	1,25,74,209	2,80,74,320

The work was confined to the recoinage of 1835 and 1840 rupees and uncurrent coin.

At the Bombay Mint were coined  
37,47,509 British dollars

96,779 ten-cent pieces } Singapore.  
564,668 five-cent pieces

41,760,000 nickel one-anna pieces.

The bronze coinage of the year consisted of pie, half-pie, and pie-pieces of the aggregate value of about Rs. 9,25,625.

The copper coinage comprised (1) cents of the value of Rs. 39,920 for the Ceylon Government, and (2) Annam cash of the value of Rs. 1,971 for the Pudukottai Darbar.

The Revenue and Expenditure of the two Mints (including interest on capital outlay and other *pro forma* charges) amounted to Revenue, Rs. 24,47,248 and Expenditure, Rs. 24,99,903.

The Gold and Silver Assays made during the year numbered.

	Calcutta.		Bombay.	
Year.	Gold.	Silver.	Gold.	Silver.
1911-12	679	11,930	372	33,530

The Indian denominations with their British equivalents are:—

Pie	1/12 penny.
Pice (3 pice)	1 farthing.
Anna (12 pice)	1 penny.
Rupee (16 annas)	1s. 4d.

A lakh (lac) is 100,000 rupees and a crore is 100 lakhs.

The equivalents of the rupee in various currencies are approximately as follows:—

One rupee =	1.68 franc (France, Italy, Belgium, &c.).
"	1.36 mark (Germany).
"	1.6 krone (Austria-Hungary).
"	0.324 dollar (United States).
"	0.65 Yen (Japan).

The denominations of currency notes in circulation are 5, 10, 20, 50, 100, 500, 1,000, and 10,000 rupees.

## HISTORY OF THE COINAGE.

The Indian mints were closed to the unrestricted coinage of silver for the public from the 26th June 1893, and Act VIII of 1893, passed on that date, repealed Sections 19 to 26 of the Indian Coinage Act of 1879 which provided for the coinage at the mints for the public of gold and silver coins of the Government of India. After 1893 no Government rupees were coined until 1897, when, under arrangements made with the Native States of Mhopal and Kashmir, the currency of those States was replaced by Government rupees. The re-coinage of these rupees proceeded through the two years 1897 and 1898. In 1899 there was no coinage of rupees; but in the following year it seemed that coinage was necessary, and it was begun in February 1900, the Government purchasing the silver required, and paying for it mainly with the gold accumulated in the Paper Currency Reserve. In that and the following month a crore of rupees was coined and over 17 crores of rupees in the year ending the 31st March 1910, including the rupees issued in connection with the conversion of the currencies of Native States. From the profit accruing to Government on the coinage it was decided to constitute a separate fund called the Gold Reserve Fund as the most effective guarantee against temporary fluctuations of exchange. The whole profit was invested in sterling securities, the interest from which was added to the fund. In 1906 exchange had been practically stable for eight years, and it was decided that of the coinage profits devoted to this fund, six crores

should be kept in rupees in India, instead of being invested in gold securities. The Gold Reserve Fund was then named the Gold Standard Reserve. It was ordered in 1907 that only one-half of the coinage profits should be paid into the reserve, the remainder being used for capital expenditure on railways. The Gold Standard Reserve was called into action before the year 1907-08 was out. Exchange turned against India, and in March 1908, the Government of India offered bills on the Secretary of State up to half a million sterling, while the Secretary of State sold £1,000,000 Consols in order to meet such demands. During April to August, further sterling bills were sold for a total amount of £8,038,000. On a representation by the Government of India, the Secretary of State agreed to defer the application of coinage profits to railway construction until the sterling assets of the Gold Standard Reserve amounted to £25,000,000. On the 31st March 1913, the Reserve amounted to £22,571,333.

### Gold.

Since 1870 there has been no coinage of double mohurs in India and the last coinage of single mohurs was in the year 1891-92.

Act XXII of 1899, passed on the 15th September 1899, provided that gold coin (sovereign and half-sovereigns) shall be a legal tender in payment or on account at the rate of fifteen rupees for one sovereign.



**Silver.**

The weight and fineness of the silver coins are :—

	FINE SILVER. grains.	ALLOY. grains.	TOTAL. grains.
Rupce .. ..	165	15	180
Half-rupce .. ..	82½	7½	90
Quarter-rupce or 4-anna piece .. ..	41¼	3¾	45
Eighth of a rupce or 2-anna piece .. ..	20½	1¾	22½

One rupce = 165 grains of fine silver.

One shilling = 80½ grains of fine silver.

One rupce = shillings 2/0439.

**Copper and Bronze.**

Copper coinage was introduced into the Bengal Presidency by Act XXII of 1835, and into the Madras and Bombay Presidencies by Act XXII of 1844.

The weight of the copper coins struck under Act XXIII of 1870 remained the same as it was in 1835. It was as follows :—

	GRAINS TROY.
Double piece or half-anna .. ..	200
Piece or quarter-anna .. ..	100

**The Paper Currency.**

Under Acts VI of 1839, III of 1840, and IX of 1843, the Presidency Banks of Bengal, Bombay, and Madras were authorised to issue notes payable on demand, but the issue of the notes was practically limited to the three cities of Calcutta, Bombay, and Madras. These Acts were repealed, on the 1st March 1862, by Act XIX of 1861, providing for the issue of a paper currency through a Government Department, by means of notes of the Government of India payable to bearer on demand. Since then no banks have been allowed to issue notes in India.

Act II of 1910 amended and consolidated the law on the subject. By it, a note of the value of five, ten, or fifty rupees, as well as a note of any other denominational value which the Governor General in Council may, by notification in the *Gazette of India*, so specify, was declared to be a "universal currency note," that is, legal tender throughout British India and encashable at any office of issue in British India; the then existing sub-circles of Cawnpore, Lahore, Karachi, and Calcutta were abolished, and the first three of these constituted separate circles of issue in addition to Calcutta, Madras, Bombay, and Rangoon. At the same time, by a notification issued under the Act, the further issue of 20-rupce notes was discontinued. By another notification issued in 1911 under section 2 of the same Act a currency note of the denominational value of one hundred rupees was declared to be a "universal currency note."

Act VII of 1911 raised the invested portion of the Currency Reserve from 12 crores to 14 crores with permission to make the additional investment in sterling securities if desired.

**Department of Paper Currency.**

The function of this department is to issue,

Half-piece or one-eighth of an anna .. 50

Pie, being one-third of a piece or one-twelfth of an anna .. .. 33½

The weight and dimensions of bronze coins are as follows :—

	STANDARD WEIGHT IN GRAINS TROY.	DIAMETER IN MILLI- METRES.
Piece .. ..	75	25·4
Half-piece .. ..	37½	21·15
Pie .. ..	25	17·45

**Nickel.**

The Act of 1906 also provides for the coinage of a nickel coin. It was directed that the nickel one-anna piece should thenceforth be coined at the Mint and issue. The notification also prescribed the design of the coin, which has a waved edge with twelve scollops, the greatest diameter of the coin being 21 millimetres, and its least diameter 19·8 millimetres. The desirability of issuing a half anna nickel coin was considered by the Government of India in 1909, but after consultation with Local Governments it was decided not to take action in this direction until the people had become thoroughly familiar with the present one-anna coin.

without any limits, promissory notes (called currency notes) of the Government of India payable to the bearer on demand, of the denominations of Rs. 5, 10, 50, 100, 500, 1,000, and 10,000, the issue being made in exchange for rupees or half rupees or for gold coin, which is legal tender, from any Paper Currency office or agency, and for gold bullion and gold coin, which is not legal tender, from circle offices on the requisition of the Comptroller General.

**Supply and issue of Currency Notes.**

Currency notes are supplied by the Secretary of State through the Bank of England on an indent from the Head Commissioner. The Head Commissioner or Commissioners supply Currency Agents with all the notes required for the purposes of the Paper Currency Act. Every such note, other than a "universal" note, bears upon it the name of the place from which it is issued and every note is impressed with the signature of the Head Commissioner or of a Commissioner or Deputy Commissioner.

The officers in charge of the circles of issue are authorised to issue, from the office or offices established in their circles, currency notes in exchange for the amount thereof (1) in rupees or half-rupees or in gold coin which is legal tender under the Indian Coinage Act; or in rupees made under the Native Coinage Act, IX of 1876, and (2) on the requisition of the Comptroller General, to all treasuries, in gold coin which is not legal tender under the Coinage Act or gold bullion at the rate of one Government rupee for 7·53344 grains troy of fine gold. Currency notes can also be issued against gold coin or bullion or silver bullion or sterling securities held by the Secretary of State for India in Council.

### Notes when legal tender.

Every note is a legal tender in its own circle (except by Government at the office of issue) for the amount expressed in that note; that is to say, whenever a note forms the integral sum or a portion, of any payment, either to Government on account of a revenue or other claim, or to any body corporate or person in British India, it is a legal tender. Five, ten, fifty and hundred rupees notes are legal tender throughout British India.

Notes of higher denominations than five, ten, fifty and hundred rupees are payable only at the office or offices of issue of the town from which they have been issued. In ordinary circumstances every Government treasury, of which there are about 250 in British India, cashes or exchanges notes if it can do so without inconvenience; and when this cannot be done conveniently for large sums, small sums can generally be exchanged for travellers.

### Reserve.

The whole amount of currency notes in circulation is secured by a reserve of gold and silver coin or bullion and securities of the Government of India or of the United Kingdom. The total amount of such securities is limited to 140 millions of rupees, of which not more than 40 millions of rupees may be in sterling securities. Under the Act of 1882 the maximum limit of the securities was fixed at sixty millions of rupees; but, the issues having largely expanded, the Government of India was empowered by Act XV of 1890 to raise the limit to eighty millions. The power was utilised to raise the invested reserve to seventy millions on the 19th December 1890, and to eighty millions a year later, on the 3rd December 1891. By notification No. 5366 of the 14th December 1896, the invested reserve was raised to one hundred millions, the power to do so having been given by Act XXI of 1896. Act III of 1905 raised the limit to 120 millions and in August of that year 20 millions of the reserve were invested by the Secretary of State in consols and exchequer bonds. In 1908-09 the exchequer bonds were replaced by Consols. By Act VII of 1911 the limit was raised further to 140 millions, and in April of that year 20 millions were invested by the Secretary of State in Consols.

### Currency Chest.

Under the Gold Note Acts of 1898 and 1900, the Government of India had obtained authority to hold a part of the metallic portion of the reserve in gold coin (or temporarily in silver bullion) in London instead of in India. The object of these enactments was merely to afford temporary relief to the Indian money market in seasons of stress. A certain amount of gold had in this way been held in London during 1899 and 1900, but not to any large extent, and the occasion for doing so ceased, except in regard to gold in transit, from the middle of 1900. Act II of 1910, however, gives full power to hold the metallic portion of the reserve or any part of it, either in London or in India or partly in both places, and also in gold coin or bullion or in rupees or silver bullion, at the free discretion of Government subject only to the exception that rupees should be kept only in India and not in London. A currency chest was accordingly opened in London and a sum of £6,000,000 was remitted from India in pursuance of this policy,

and a further sum of £1,045,000 was transferred to the chest from the Secretary of State's balances during the course of 1905-06. On the 31st March 1913 the London currency chest held £8,000,000 on behalf of the Currency Reserve.

### Metallic Reserve.

The metallic reserve may consist of sovereigns, half sovereigns, rupees, and half rupees, and gold and silver bullion, the last named being valued at the sum spent on the purchase of such bullion. No gold was contained in the reserve between March 1876 and February 1898, and the quantity increased very slowly until February 1899, but from that date it rose rapidly till the end of March 1900 when it amounted to £7,500,012. Government then took measures to reduce what was considered to be an inconveniently large gold reserve, and at the end of March 1901 the value of the gold reserve had fallen to £5,778,518. In the next three years it again increased continuously from £7,023,921 at the end of 1901-02 to £9,859,564 at the end of 1902-03 and £10,789,567 at the end of 1903-04. During the next three years it remained practically steady, the amount held on the 31st March 1907 being £10,688,841. In 1907-08 the serious monetary crisis in America and the contraction in the exports from India owing to the famine led to a very large increase in the demand for gold at the Currency offices with the result that on the 31st March 1908 the value of the gold reserve had fallen to £8,417,841 inclusive of £3,705,000 held in England. Adverse trade conditions continued in 1908-09 and on the 31st March 1909 the gold reserve had dwindled down to £1,523,414, of which £1,500,000 was held in England. Normal conditions returned in 1909-10 and the stock of gold in the reserve rose to £8,701,716 on 31st March 1910. On the 31st March 1913 the stock in the reserve amounted to £25,500,000.

### Gold in Paper Currency Reserve (£ Million).

March 31.	In India.	In London.	Total
1897	....	....	....
1898	2½	....	2½
1899	7½	1½	9
1900	6	....	6
1901	7	....	7
1902	10	....	10
1903	11	....	11
1904	10½	....	10½
1905	4	7	11
1906	3½	10½	14
1907	2½	3½	6
1908	6	2½	8½
1909	6	5	11
1910	15½	5½	21
1911	10½	6	25½
1912	10½	6	25½
1913	10½	6	25½

### Distribution of Reserve, March 31, 1913.

	£
Rupees	11,000,000
Gold in India	19,500,000
Gold in London	6,000,000
Securities	9,500,000
Total	46,000,000

**Interest.**

The interest accruing on the invested reserve is entered in a separate account, and paid to the credit of the Government of India, under the head "Profits of note circulation." The interest on the one hundred and twenty millions of rupees in the invested reserve amounted in 1910-11 to Rs. 40,31,030 made up of Rs. 34,70,420 in India and Rs. 5,60,610 in England, the expenditure of the Department being about Rs. 15,71,404 on the average for the last five years.

**Circulation.**

The average monthly circulation of the notes has been, in millions of rupees:—

Five years ending..	..	1880-81	129.07
"	"	..	1885-86 112.65
"	"	..	1890-91 171.67
"	"	..	1895-96 282.44
"	"	..	1900-01 265.39
"	"	..	1905-06 361.80
"	"	..	1910-11 481.97

The circulation of the different denominations of notes on the 31st March 1892 and 1911 was as follows:—

	1892 Rs.	1911 Rs.
5-rupee ..	24,03,675	1,21,28,865
10 " ..	3,57,10,580	12,52,80,130
20 " ..	63,72,180	21,34,620
50 " ..	1,08,06,750	2,63,21,400
100 " ..	3,05,92,400	11,06,61,300
500 " ..	2,28,26,500	2,81,52,500
1,000 " ..	6,00,32,000	8,51,64,000
10,000 " ..	5,20,20,000	12,97,60,000

According to the latest official estimate the circulating medium is as follows:—

Rupees ..	£ 120,000,000
Sovereigns ..	£ 40,000,000
Currency Notes ..	£ 40,000,000

**The Gold Reserve Fund.**

The Gold Reserve Fund was first started in the beginning of 1901 when the profits which had accrued from the coinage of rupees from April 1900 amounting to £3 millions were credited to the fund, gradually remitted to England from time to time and there invested in sterling securities. In the following years the demand for rupees for trade requirements necessitated further heavy coinage and the investments held in the Gold Reserve Fund rapidly swelled by the credit of the profits and the interest thereon and amounted at the close of 1905-06 to £12½ millions. During the latter half of this year, abnormal trade activity resulted in an unprecedented demand for silver currency and necessitated exceptionally heavy coinage in a short space of time. To avoid the possibility of a recurrence of similar inconvenience, a separate silver branch of the Gold Reserve Fund was formed and was brought up to its proposed limit of rupees 6 crores (£4 millions) by March 1907; and after being for a short time known as the "Gold and Silver Reserve Fund" it was finally named the Gold Standard Reserve. At the close of 1906-07, the Reserve contained nearly £17 millions, of which £12½ millions were held in securities, £4 millions in rupees in India and the rest in gold in India and as a book credit. It is not necessary in this report to recount the events of the latter half of 1907-08. It will be sufficient to mention that the sale in India during the first half of 1908-09 of sterling bills on London resulted in the withdrawal from circulation in India of some Rs. 12 crores, the equivalent being withdrawn in gold by the Secretary of State from the Reserve in London, securities to the value of over £8 millions being put on the market. By November 1908, the silver in the Reserve in India had reached 18.65 crores. The subsequent improvement in trade conditions necessitated a portion of this silver being transferred to the Paper Currency Department to meet notes and frequent similar transfers continued to be made, the account being adjusted by a transfer in the opposite direction in London, made in gold from the Currency Reserve held there to the Gold Standard

Reserve. By March 1911, the silver branch in India contained only 2.90 crores and the balance remained at this figure till September 1912, when the resumption of coinage made it possible gradually to increase it up to Rs. 6 crores, of which 4½ were held in Bombay.

The following statement compares the composition of the Gold Standard Reserve at the beginning and end of the official year:—

	1st April 1912.	31st March 1913.
1. Securities ..	16,748,285	15,945,660
2. Cash placed by the Secretary of State ..	1,073,710	1,005,664
3. Gold held at the Bank of England ..	.....	1,620,000
4. Rupees in India ..	1,934,302	4,000,000
5. Gold held in India ..	.....	.....
<b>Total</b> ..	<b>19,756,097</b>	<b>22,571,333</b>

The balance of the Gold Standard Reserve on the 31st October, 1913, in India and in England amounted to £23,060,511, and was held in the following form:—

	£
1. Rupees in India equivalent to (at £1 Rs. 15) ..	3,000,000
2. Gold in India ..	11,59,500
3. Gold set aside in the Bank of England ..	1,840,000
4. Cash placed by the Secretary of State for India in Council at short notice ..	1,142,180
5. British and Colonial Government Securities and Corporation of London Bonds held on 30th September, 1913 (market price on 30th September, 1913) ..	15,913,833
<b>Total</b> ..	<b>23,060,511</b>

GROSS REVENUE IN INDIA AND ENGLAND: IN £ (15 RUPES=£1).

HEADS OF REVENUE.	1903-4. 1904-5. 1905-6. 1906-7. 1907-8. 1908-9. 1909-10. 1910-11.									
	£	£	£	£	£	£	£	£	£	£
PRINCIPAL HEADS OF REVENUE:										
Land Revenue .. .. .	19,311,430	18,927,083	18,835,986	19,783,791	18,719,322	19,739,060	21,332,141	20,877,521		
Opium .. .. .	9,736,045	6,021,499	5,484,780	5,660,328	5,244,986	5,884,788	5,334,683	7,321,962		
Salt .. .. .	5,250,465	5,354,768	4,376,410	4,362,706	3,338,088	3,276,139	3,319,518	3,175,950		
Stamps .. .. .	3,580,247	3,738,362	3,926,364	4,026,908	4,259,649	4,344,136	4,548,304	4,811,691		
Excise .. .. .	4,920,096	5,353,425	6,871,820	5,084,219	6,227,010	6,389,628	6,537,854	7,030,314		
Provincial Rates .. .. .	1,921,890	1,036,653	953,664	516,671	525,529	533,365	539,223	534,378		
Customs .. .. .	3,066,298	4,361,771	4,348,017	4,351,692	5,004,494	4,882,264	4,963,118	6,019,069		
Assessed Taxes .. .. .	1,206,845	1,269,225	1,321,393	1,423,787	1,504,113	1,533,419	1,558,964	1,593,301		
Forest .. .. .	1,481,116	1,601,997	1,779,366	1,768,911	1,732,610	1,700,894	1,735,386	1,829,357		
Registration .. .. .	326,902	338,690	361,939	379,736	415,311	430,936	430,377	425,855		
Tributes from Native States .. .. .	609,086	633,844	597,430	600,956	584,520	589,636	588,307	607,447		
TOTAL .. .. .	47,370,420	48,637,317	47,657,389	48,786,935	47,536,832	49,294,335	51,089,875	55,046,965		
RECEIPTS BY CIVIL DEPARTMENTS:										
Law and Justice: .. .. .	888,849	839,322	934,181	972,193	965,737	987,325	1,184,343	1,465,439		
Courts of Law .. .. .	1,304,705	1,374,241	1,630,724	1,751,146	1,823,909	1,825,620	1,927,229	1,996,622		
Jails .. .. .	857,635	897,923	909,854	933,606	1,006,797	978,097	902,851	997,159		
Police .. .. .	2,884,766	206,410	321,183	419,498	443,918	102,654	125,953	196,110		
Ports and Pilotage .. .. .	255,902	251,938	275,538	271,423	294,087	280,117	293,339	310,663		
Education .. .. .	240,612	245,405	253,229	251,718	254,463	246,234	230,135	237,791		
Medical .. .. .	175,239	173,992	169,872	150,310	153,651	156,123	148,930	155,373		
Scientific and other Minor Departments .. .. .	127,370	142,163	145,496	143,962	138,870	139,988	140,083	146,531		
.. .. .	116,150	122,818	136,436	140,988	145,285	158,430	165,875	183,636		
.. .. .	60,398	57,581	69,316	55,646	52,469	56,549	58,235	63,697		
.. .. .	102,422	86,608	84,323	86,782	89,154	106,536	109,436	113,432		
TOTAL .. .. .	1,078,763	1,080,505	1,134,210	1,100,829	1,087,919	1,145,977	1,146,075	1,211,123		
MISCELLANEOUS RECEIPTS:										
Receipts in aid of Superannuation, &c. .. .. .	197,635	191,585	196,421	191,887	221,636	195,011	192,086	195,489		
Stationary and Printing .. .. .	71,372	71,782	73,715	78,745	91,472	95,568	95,324	97,656		
Exchange .. .. .	58,429	94,065	82,870	190,022	94,511	..	44,481	70,084		
Miscellaneous .. .. .	292,708	275,327	334,487	478,947	304,012	285,126	373,997	314,662		
TOTAL .. .. .	620,344	630,259	687,493	939,601	711,631	575,705	705,858	677,891		

## GROSS REVENUE IN INDIA AND ENGLAND, IN £ (15 RUPEES=£1).—(contd.).

HEADS OF REVENUE.		1903-4.	1904-5.	1905-6.	1906-7.	1907-8.	1908-9.	1909-10.	1910-11.
		£	£	£	£	£	£	£	£
<b>RAILWAYS:</b>									
State Railways (Gross Receipts) .. ..		20,549,195	22,863,835	23,589,579	25,781,078	27,296,944	26,799,888	28,023,931	30,629,756
<b>Deduct—</b>									
Working Expenses and Surplus Profits paid to Companies.		10,364,453	11,276,013	11,647,231	13,252,245	15,078,894	16,913,089	10,336,801	16,787,641
<b>Net Receipts</b>									
Guaranteed Companies (Net Traffic Receipts) ..		10,184,742	11,587,842	11,942,348	12,528,833	12,218,110	9,886,799	12,387,130	13,842,115
Subsidized Companies (Government share of Surplus Profits and Repayment of Advances of Interest).		941,463	1,074,814	921,975	396,801	258,615	—901	—48	—
		39,512	47,314	42,628	56,189	52,606	72,203	58,296	39,346
<b>TOTAL</b>		11,166,017	12,709,570	12,906,951	12,983,823	12,499,331	9,958,041	12,445,378	13,881,461
<b>IRRIGATION:</b>									
Major Works:									
Direct Receipts .. ..		1,920,030	1,994,331	1,869,136	2,342,231	2,208,014	2,247,624	2,307,077	2,388,051
Portion of Land Revenue due to Irrigation ..		837,139	883,250	988,779	1,006,981	1,040,533	1,091,044	1,117,384	1,178,905
Minor Works and Navigation .. ..		149,946	179,100	164,673	183,705	232,045	219,334	235,691	228,465
<b>TOTAL</b>		2,907,115	3,066,681	3,002,608	3,532,017	3,480,592	3,558,002	3,660,156	3,694,521
<b>OTHER CIVIL PUBLIC WORKS</b>		289,091	254,481	254,504	287,863	249,066	287,938	268,786	293,833
<b>RECEIPTS BY MILITARY DEPARTMENT:</b>									
Army:									
Effective .. ..		948,035	844,384	1,058,373	1,095,514	908,549	764,746	875,557	948,154
Non-effective .. ..		141,393	116,541	131,028	122,055	113,980	98,199	102,171	110,495
Re-organisation .. ..		..	6	295	..	..	..	..	..
<b>Naval</b>									
Military Works .. ..		1,089,428	960,931	1,189,696	1,217,569	1,022,479	862,939	977,728	1,058,640
		265,333	203,791	148,175	148,175	87,686	125,448	83,460	91,787
		45,083	45,462	49,306	50,999	57,268	59,254	75,773	70,593
<b>TOTAL</b>		1,399,844	1,210,184	1,382,772	1,416,743	1,167,433	1,047,641	1,136,961	1,221,029
<b>TOTAL REVENUE</b> .. ..		70,967,579	71,107,293	70,841,869	73,144,554	71,003,275	69,761,535	74,593,495	80,882,473

## The Indian Railways.

The history of Indian Railways very closely reflects the financial vicissitudes of the country. Not for some time after the establishment of Railways in England was their construction in India contemplated, and then to test their applicability to Eastern conditions three experimental lines were sanctioned in 1845. These were from Calcutta to Raniganj (120 miles), the East Indian Railway; Bombay to Kalyan (33) miles, Great India Peninsula Railway; and Madras to Arkonam (39 miles), Madras Railway. Indian Railway building on serious scale dates from Lord Dalhousie's great minute of 1853, wherein, after dwelling upon the great social, political and commercial advantages of connecting the chief cities by rail, he suggested a great scheme of trunk lines linking the Presidencies with each other and the inland regions with the principal ports. This reasoning commended itself to the Directors of the East India Company, and it was powerfully reinforced when, during the Mutiny, the barriers imposed on free communication were severely felt. As there was no private capital in India available for railway construction, English Companies, the interest on whose capital was guaranteed by the State, were formed for the purpose. By the end of 1859 contracts had been entered into with eight companies for the construction of 5,000 miles of line, involving a guaranteed capital of £52 millions. These companies were (1) The East Indian; (2) the Great Indian Peninsula; (3) the Madras; (4) the Bombay, Baroda and Central India; (5) the Eastern Bengal; (6) the Indian Branch, now the Oudh and Rohilkund State Railway; (7) the Sind, Punjab and Delhi, now merged in the North Western State Railway; (8) the Great Southern of India, now the South Indian Railway. The scheme laid the foundations of the Indian Railway system as it exists to-day.

### Early Disappointments.

The main principle in the formation of these companies was a Government guarantee on their capital, for this was the only condition on which investors would come forward. This guarantee was five per cent, coupled with the free grant of all the land required; in return the companies were required to share the surplus profits with the Government, after the guaranteed interest had been met; the interest charges were calculated at 2½ to the rupee; the Railways were to be sold to Government on fixed terms at the close of twenty-five years and the Government were to exercise close control over expenditure and working. The early results were disappointing. Whilst the Railways greatly increased the efficiency of the administration, the mobility of the troops, the trade of the country, and the movement of the population, they failed to make profits sufficient to meet the guaranteed interest. Some critics attributed this to the unnecessarily high standard of construction adopted, and to the engineers' ignorance of local conditions; the result was that by 1869 the deficit on the Railway budget was Rs. 166½ lakhs. Seeking for some more economical method of construction, the Government

secured sanction to the building of lines by direct State Agency, and funds were allotted for the purpose, the metre gauge being adopted for cheapness. Funds soon lapsed and the money available had to be diverted to converting the Sind and Punjab lines from metre to broad-gauge for strategic reasons. Government had therefore again to resort to the system of guarantee, and the Indian Midland (1882-85), since absorbed by the Great Indian Peninsula; the Bengal-Nagpur (1883-87), the Southern Maratha (1882), and the Assam-Bengal (1891) were constructed under guarantees, but on easier terms than the first companies. Their total length was over 4,000 miles.

### Famine and Frontiers.

In 1879, embarrassed by famine and by the fall of the exchange value of the rupee, Government again endeavoured to enlist unaided private enterprise. Four companies were promoted:—the Nilgiri, the Delhi-Umballa-Kalka, the Bengal Central, and the Bengal North-Western. The first became bankrupt, the second and third received guarantees, and the Tirhut Railway had to be leased to the fourth. A step of even greater importance was taken when Native States were invited to undertake construction in their own territories, and the Nizam's Government guaranteed the interest on 330 miles of line in the State of Hyderabad. This was the first of the large system of Native State Railways. In the first period up to 1870, 4,255 miles were opened, of which all save 45 were on the broad gauge; during the next ten years there were opened 4,239, making the total 8,494 (on the broad gauge, 6,562, the metre 1,865, and narrow 67). Then ensued a period of financial ease. It was broken by the fall in exchange and the costly lines built on the frontier. The Penjdeh incident, which brought Great Britain and Russia to the verge of war, necessitated the connection of our outposts at Quetta and Chaman with the main trunk lines. The sections through the desolate Harial and Bolan Passes were enormously costly; it is said that they might have been ballasted with rupees; the long tunnel under the Khojak Pass added largely to this necessary, but unprofitable outlay.

### Rebate Terms Established.

This induced the fourth period—the system of rebates. Instead of a gold subsidy, companies were offered a rebate on the gross earnings of the traffic interchanged with the main line, so that the dividend might rise to four per cent, but the rebate was limited to 20 per cent. of the gross earnings. Under these conditions, there were promoted the Ahmedabad-Prantel, the South Behar, and the Southern Punjab, although only in the case of the first were the terms strictly adhered to. The Barsi Light Railway, on the two feet six inches gauge, entered the field without any guarantee, and with rolling stock designed to illustrate the carrying power of this gauge. The rebate terms being found unattractive in view of the competition of 4 per cent. trustee stocks, they were revised in 1896 to provide for an

absolute guarantee of 3 per cent. with a share of surplus profits, or rebate, up to the full extent of the main line's net earnings in supplement of their own net earnings, the total being limited to 3½ per cent. on the capital outlay. Under these terms, a considerable number of feeder line companies was promoted, though in none were the conditions arbitrarily exacted. As these terms did not at first attain their purpose, they were further revised, and in lieu was substituted an increase in the rate of guarantee from 3 to 3½ per cent. and of rebate from 3½ to 5 per cent. with equal division of surplus profits over 5 per cent. in both cases. At last the requirements of the market were met, and there has since been a mild boom in feeder railway construction and the stock of all the sound companies promoted stands at a substantial premium.

### Railway Profits Commence.

Meantime a much more important change was in progress. The gradual economic development of the country vastly increased the traffic, both passenger and goods. The falling in of the original contracts allowed Government to re-negotiate them on more favourable terms. The development of irrigation in the Punjab and Sind transformed the North-Western State Railway. Owing to the burden of maintaining the unprofitable Frontier lines, this was the Chanderella Railway in India—the scapegoat of the critics who protested against the un wisdom of constructing railways from borrowed capital. But with the completion of the Chenab and Jhelum Canals, the North-Western became one of the great grain lines of the world, choked with traffic at certain seasons of the year and making a large profit for the State. In 1900 the railways for the first time showed a small gain to the State. In succeeding years the net receipts grew rapidly. In the four years ended 1907-08 they averaged close upon £2 millions a year. In the following year there was a relapse. Bad harvests in India, accompanied by the monetary panic caused by the American financial crisis, led to a great falling off in receipts just when working expenses were rising, owing to the general increase in prices. Instead of a profit, there was a deficit of £1,210,000 in the railway accounts for 1908-09. But in the following year there was a reversion to a profit, and the net Railway gain has steadily increased. For the year ended March 1913 this gain amounted to £5·49 millions (Rs. 823 lakhs). Although in a country like India, where the finances are mainly dependent upon the character of the monsoon, the railway revenue must fluctuate, there is no reason to anticipate a further deficit, but every ground for hoping that the railway profits will fill the vacuum in the Indian revenues caused by the cessation of the opium trade with China.

### Contracts Revised.

A very important factor in this changed position is the revision of the original contracts under which the guaranteed lines were constructed. The five per cent. dividend, guaranteed at 22d per rupee, and the half-yearly settlements, made these companies a drain on the State at a time when their stock was at a high premium. The first contract

to fall in was the East Indian, the great line connecting Calcutta with Delhi and the Northern provinces. When the contract lapsed, the Government exercised their right of purchasing the line, paying the purchase-money in the form of terminable annuities, derived from revenue, carrying with them a sinking fund for the redemption of capital. The railway thus became a State line; but it was released to the Company which actually works it. Under these new conditions the East Indian Company brought to the State in the ten years ended 1909, after meeting all charges, including the payments on account of the terminable annuity by means of which the purchase of the line was made, and interest on all capital outlay subsequent to the date of purchase, a clear profit of nearly ten millions. At the end of seventy-four years from 1880, when the annuity expires, the Government will come into receipt of a clear yearly income of upwards of £2,700,000, equivalent to the creation of a capital of sixty to seventy millions sterling. No other railway shows results quite equal to the East Indian, because, in addition to serving a rich country by an easy line, it possesses its own collieries and enjoys cheap coal. But with allowance for these factors all the other guaranteed companies which have been required under similar conditions as their contracts expired, have proportionately swelled the revenue and assets of the State. It is difficult to estimate the amount which must be added to the capital debt of the Indian railways in order to counter-balance the loss during the period when the revenue did not meet the interest charges. According to one estimate it should be £50 millions. But even if that figure be taken, Government have a magnificent asset in their railway property.

### Improving Open Lines.

These changes induced a corresponding change in Indian Railway policy. Up to 1900 the great work had been the provision of trunk lines. But with the completion of the Nagda-Munira line, providing an alternative broad gauge route from Bombay to Delhi through Eastern Rajputana, the trunk system was virtually complete. A direct broad gauge route from Bombay to Sind is needed, but chiefly for strategic purposes. The poor commercial prospects of the line and the opposition of the Rao of Cutch to any through line in his territories, keep this scheme in the background. There does not exist any through rail connection between India and Burma, although several routes have been surveyed; the mountainous character of the region to be traversed, and the easy means of communication with Burma by sea, rob this scheme of any living importance. The metre gauge systems of Northern and Southern India must also be connected. But these works are subordinate to the necessity for bringing the open lines up to their traffic requirements and providing them with feeders. The sudden increase in the trade of India found the main lines totally unprepared. Costly works were necessary to double lines, improve the equipment, provide new and better yards and terminal facilities and to increase the rolling stock. Consequently the demands

on the open lines have altogether overshadowed the provision of new lines. Even then the railway budget was found totally inadequate for the purpose, and a small Committee sat in London, under the chairmanship of Lord Incheape, to consider ways and means. This Committee found that the amount which could be remuneratively spent on railway construction in India was limited only by the capacity of the money market. They fixed the annual allotment at £12,000,000 a year. Even this reduced sum could not be reached in practice, and the full provision has been made in the current budget for the first time by drawing largely on the Government balances.

### Government Control.

As the original contracts carried a definite Government guarantee of interest, it was necessary for Government to exercise strong supervision and control over the expenditure during construction, and over management and expenditure after the lines were open for traffic. For these purposes a staff of Consulting Engineers was formed, and a whole system of checks and counterchecks established, leading up to the Railway Branch of the Public Works Department of the Government of India. As traffic developed, the Indian Railways outgrew this dry nursing, and when the original contracts expired, and the interests of Government and the Companies synchronised, it became not only vexatious but unnecessary. Accordingly in 1901-02 Mr. Thomas Robertson was deputed by the Secretary of State to examine the whole question of the organisation and working of the Indian Railways, and he recommended that the existing system should be replaced by a Railway Board, consisting of a Chairman and two members, with a Secretary. The Board was formally constituted in March 1905. The Board is outside, but subordinate to the Government of India in which it is represented by the Department of Commerce and Industry. It prepares the railway programme of expenditure and considers the greater questions of policy and economy affecting all the lines. Its administrative duties include the construction of new lines by State agency, the carrying out of new works on open lines, the improvement of railway management with regard both to economy and public convenience, the arrangements for through traffic, the settlement of disputes between lines, the control and promotion of the staff on State lines, and the general supervision over the working and expenditure of the Company's lines. Two minor changes have taken place since the constitution of the Railway Board. In 1908, to meet the complaint that the Board was subjected to excessive control by the Department of Commerce and Industry, the powers of the Chairman were increased and he was given the status of a Secretary to Government with the right of independent access to the Viceroy; he usually sits in the Imperial Legislative Council as the representative of the Railway interest. In 1912 in consequence of complaints of the excessive interference of the Board with the Companies, an informal mission was undertaken by Lord Incheape to reconcile differences. The constitution of the Board is now undergoing further inquiry, and the

development generally favoured in the establishment of a Railway Member of the Viceroy's Executive Council.

### Management.

The Railways managed by Companies have Boards of Directors in London. They are represented in India by an Agent, who has under him a Traffic Manager, a Chief Engineer, a Locomotive Superintendent, a Store-keeper, a Police Superintendent, (who is appointed by Government), and an Auditor. The State Railways are similarly organised, with a slightly different nomenclature; the head of the line is termed the Manager.

### Clearing House.

Proposals have several times been made for the establishment of a Clearing House but the distances are too great. The work which would ordinarily be done by the Clearing House is done by the Audit Office of each Railway.

### The Railway Conference.

In order to facilitate the adjustment of domestic questions, the Railway Conference was instituted in 1876. This Conference was consolidated into a permanent body in 1903 under the title of the Indian Railway Conference Association. It is under the direct control of the railways, it elects a President from amongst the members, and it has done much useful work.

### The Indian Gauges.

The standard gauge for India is five feet six inches. When construction was started the broad gauge school was strong, and it was thought advisable to have a broad gauge in order to resist the influence of cyclones. But in 1870, when the State system was adopted it was decided to find a more economical gauge, for the open lines had cost £17,000 a mile. After much deliberation, the metre gauge of 3 feet 3½ inches was adopted, because at that time the idea of adopting the metric system for India was in the air. The original intention was to make the metre gauge lines provisional; they were to be converted into broad gauge as soon as the traffic justified it; consequently they were built very light. But the traffic expanded with surprising rapidity, and it was found cheaper to improve the carrying power of the metre gauge lines than to convert them to the broad gauge. So, except in the Indus Valley, where the strategic situation demanded an unbroken gauge, the metre gauge lines were improved and they became a permanent feature in the railway system. Now there is a great metre gauge system north of the Ganges connected with the Rajputana lines and Kathiawar. Another system in Southern India embracing the Southern Maratha and the South India Systems. These are not yet connected, but the necessary link from Khandwa by way of the Nizam's Hyderabad-Godavari Railway, cannot be long delayed. All the Burma lines are on the metre gauge. Since the opening of the Bansi line, illustrating the capacity of the two feet six inch gauge, there has been developed a tendency to construct feeders on this rather than on the metre gauge.



## STATISTICAL RESULTS OF WORKING.

During the last year for which figures are available there were 668 miles of line opened to traffic, bringing the total Mileage open, to 33,484 miles of the following gauge:—

17,189 of 5 feet 6 inch (standard gauge)

14,165 of metre gauge.

1,892 of 2 feet 6 inches gauge.

438 miles of 2 feet gauge.

857 miles were sanctioned during the year, namely, 34 of the standard gauge, 172 miles of metre gauge and 151 of special gauge.

At the close of the year there were 2,455·2 miles sanctioned or under construction, namely, 1092·28 on the standard gauge, 536·39 on the metre gauge and 823·12 on the 2 feet 6 inch and 3·50 on the 2 feet gauge.

## Capital Expenditure.

The actual capital outlay (excluding premia) for the purchase of Companies' lines) from the commencement of operations on all opened lines amounted at the close of the current year 1912 to Rs. 46,515 lakhs and that on lines under construction Rs. 1,086 lakhs. In addition Rs. 91 lakhs were incurred on miscellaneous items, bringing the total outlay to Rs. 47,692 lakhs.

## Current Budget.

For the current year there is sanctioned an expenditure of capital account of Rs. 1,800 lakhs (£12,000,000) divided as under:—

	Rs. Lakhs.
(a) For open lines, including Rs. 760·12 lakhs for rolling stock .. ..	1,518·68

(1) Share capital of purchased railways being paid off by annuities:—

Commuted value of stock purchased .. ..	97,829,817
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## Deduct—

Commuted capital representing annuities which were purchased by creation of debt (liability included under item 3).	12,755,652
New stock of the Great Indian Peninsula railway exchanged for portion of annuity (liability included under item 5).	1,750,000
New stock of the Madras and Southern Mahratta Railway Company issued in exchange for portion of annuity (liability included under item 5).	1,500,000
Capital redeemed by annuity payments .. ..	10,374,107
	28,359,759

Not outstanding .. ..	71,470,058
(2) State outlay .. ..	138,035,180
(3) Debt incurred for purchase of railways .. ..	55,064,154
(4) Capital advanced by Government to Companies .. ..	12,664,140
5) Capital raised by Companies on the Secretary of State's guarantee (including overdrafts of capital).	57,266,553

(b) For lines already under construction—	
(i) began prior to 1912-13	203,78
(ii) begin during 1912-13	17,5
(c) For lines to be begun in 1913-14 .. ..	..
Total ..	1,800·00

## Results To the State.

The financial result to the State during the year 1912 of the working of the State railways, after meeting, in addition to the expenses of working, all charges for interest on capital outlay by the State and on capital raised by Companies, also annuity payments connected with the purchase of railways by the State, was a net gain of Rs. 823·33 lakhs (£5·49 million.) This result, however, is arrived at after inclusion in the charges against revenue of a sum of Rs. 140·35 lakhs (£936 thousand) representing the portion of annuity payments in redemption of capital. Omitting this item, which is not properly a revenue charge, the true result for the year is a net gain of Rs. 964 lakhs (£6·42 million).

This figure of 823 lakhs compares with 408 lakhs in 1911 and 298 lakhs in 1910.

## Capital Liability.

The capital liability on account of railways classed as State railways at the end of 1912 is set out in the following table:—

TOTAL CAPITAL LIABILITY ..	334,500,085
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### Earnings for the Year.

The gross earnings of all Indian railways during the year amounted to Rs. 6,165 lakhs compared with Rs. 5,527 lakhs in 1911, an increase of 637 lakhs. The working expenses were Rs. 132 lakhs more than in 1911. The net earnings amounted to Rs. 3,149 lakhs, against Rs. 2,644 lakhs, leaving an increase of 505 lakhs. These net earnings yielded a return on the capital outlay (Rs. 46,515 lakhs) of 6.77 per cent. as compared with 5.87 per cent. in 1911.

### Passengers.

The total number of passengers carried was 417 millions against 389.86 millions and the earnings therefrom amounted to 1,956 lakhs as compared with Rs. 1,849 lakhs for 1911. The number of third class passengers carried was more by 27.09 millions and the earnings therefrom amounted to Rs. 128.20 lakhs. The average rate charged to passengers of all classes was 2.45 pies per mile, just over one-fifth of a penny, and the average distance travelled was about 37 miles. There has been no material fluctuations in these figures since 1881.

### Goods.

The aggregate tonnage of goods moved during the year was 78.47 million tons and the earnings therefrom were Rs. 3,791.84 lakhs, an increase on the previous year of 7.21 million tons and Rs. 498.52 lakhs in earnings. The average rate for all description of goods carried per ton was 4.66 pies and 4.73 pies in 1911 or just under a half-penny. The average distance for which goods were carried was 199 miles compared with 187 miles in the previous year.

### Branch Lines.

The increasing interest taken in the pro-

motion of branch lines and for the construction of feeder lines was a marked feature of the year. There were under negotiation at the close of 1912, proposals for the construction of 22 miles of railway of 2 feet gauge and 1,005 miles of 2 feet 6 inches gauge and 251 miles of 3 ft. 3½ ins. gauge and 218 miles of the standard gauge, or a grand total of 1,496 miles under consideration involving a capital outlay of 7.88 crores of rupees.

### Accidents.

During the year 7 passengers were killed and 159 were injured by accidents to trains; 199 were killed and 635 were injured by accidents from other causes including accidents from their own fault; total killed 206 and 794 injured.

Amongst railway servants 20 were killed by accidents to trains and 130 were injured; 385 killed and 736 injured by accidents from other causes; total 405 killed and 866 injured.

From various other causes 1,534 persons were killed and 449 injured, this total embracing 1,173 trespassers and 231 suicides.

The grand total of all causes was 2,145 killed and 2,109 injured.

The number of passengers killed from causes beyond their control was 0.02 per million of passengers travelling, which gives an average of 1 in 2,188.41 millions of miles travelled.

### Railway Staff.

The total number of railway servants was 589,422, of which number 7,850 were Europeans and 10,066 Anglo-Indians and 671,506 Indians. Of the Europeans and Anglo-Indians 14,096 were enrolled as volunteers.

## THE CHIEF RAILWAYS IN INDIA.

The Assam-Bengal Railway, which is constructed on the metre gauge, starts from Chittagong and runs through Sylma Valley across the North Cachar Hills into Assam. It is worked under a limited guarantee by a company whose contract is terminable in 1921. The main line has an open mileage of 804.99; 54.51 miles are under construction or sanctioned bringing the total to 859.50. The total capital outlay is Rs. 1,504 lakhs, gross earnings 64 lakhs, net earnings, 17 lakhs and the percentage of net earnings on the capital outlay 1.15. The loss to the State for 1912 was Rs. 29,40,469.

### Bengal and North-Western.

The Bengal and North-Western Railway was constructed on the metre gauge system by a company without any Government assistance other than free land and was opened to traffic in 1885. The system was begun in 1874 as the Tirhut State Railway. In 1890 this line was leased by Government to the Bengal and North-Western Railway. Since then extensive additions have been made in both sections. It is connected with the Rajputana metre gauge system at Cawnpore and with the Eastern Bengal State Railway at Khatihar and the Oudh and Rohilkhand Railway

at Benares. The open mileage is 1,177.27 under construction or sanction 62.02, total 1,239.29. The total capital outlay amounts to Rs. 968 lakhs, gross earnings 112 lakhs, net earnings Rs. 73 lakhs and interest divided between the Government and Company Rs. 38,037, percentage of total net income on capital outlay 7.91.

### Bengal-Nagpur.

The Bengal-Nagpur Railway was commenced as a metre gauge from Nagpur to Chhatishgarh in the Central Provinces in 1887. A company was formed under a guarantee which took over the line, converted it to the broad gauge and extended it to Howrah, Cuttack and Katni. In 1901 a part of the East Coast State Railway from Cuttack to Vizagapatam was transferred to it and in the same year sanction was given for an extension to the coal fields and for a connection with the Branch of the East Indian Railway at Hariharpur. Open mileage 2,546.95; under construction or sanctioned 465.35; total 3,012.30. The total capital outlay is Rs. 3,036 lakhs, gross earnings Rs. 402 lakhs, net earnings 218 lakhs, percentage of net earnings on capital outlay is 6.01. The gain to the State is 73 lakhs.

### Bombay Baroda.

The Bombay, Baroda and Central India Railway is one of the original guaranteed railways. It was commenced from Surat *via* Baroda to Ahmedabad, but was subsequently extended to Bombay. The original contract was terminable in 1880, but the period was extended to 1905; and then renewed under revised conditions. In 1885 the Rajputana Malwa metre gauge system of State railways was leased to the Company and has since been incorporated in it. On the opening of the Nagda-Muttra, giving broad gauge connection through Eastern Rajputana with Delhi, the working was entrusted to this Company. On the acquisition of the Company in April 1907 the purchase price was fixed at £11,683,581. The Secretary of State's capital is £28,000,000 of preferred capital and £10,500,000 of deferred capital; the Company's capital, £2,000,000 of preferred capital. The statistical working of the broad gauge shows a mileage of 945·85, the capital outlay 2,195 lakhs, gross earnings 327 lakhs, net earnings 161 lakhs, percentage of net earnings on the capital outlay 7·38; gain to the State 55 lakhs.

The metre gauge system of the Company shows a mileage of 1,815·64; total capital outlay 1,655 lakhs, gross earnings 315 lakhs, net earnings, 161 lakhs; percentage of net earnings on the capital outlay 9·73; gain to the State 101 lakhs.

### Burma Railways.

The Burma Railway is an isolated line, and although various routes have been surveyed there is little prospect of its being connected with the Railway system of India on account of the difficult and sparsely populated country which intervenes. It was commenced as a State Railway and transferred in 1896 to a Company under a guarantee. The mileage is 1,341·85, total capital outlay Rs. 1,701 lakhs, gross earnings 202 lakhs, net earnings 81 lakhs; percentage of net earnings on the capital outlay 4·81, gain to the State 15 lakhs. Burma extensions have a total mileage of 253·18.

### Eastern Bengal.

The Eastern Bengal State Railway was promoted under the original form of guarantee and was constructed on the broad gauge. The first portion of the line running to Calcutta over the Ganges was opened in 1892. In 1874 sanction was granted for the construction on the metre gauge of the Northern Bengal State Railway, which ran from the north bank of the Ganges to the foot of the Himalayas on the way to Darjeeling. These two portions of the line were amalgamated in 1884 into one State Railway. The open mileage is 1,569·83, capital total outlay 2,900 lakhs, gross earnings 343 lakhs, net earnings 139 lakhs, percentage of net earnings on capital outlay 4·81. Gain to the State 38 lakhs.

### The East Indian.

The East Indian Railway is one of the three railways sanctioned for construction as experimental lines under the old form of guarantee. The first section from Howrah to Pandua was opened in 1854 and at the time of the Mutiny ran as far as Raniganj. It gives the only direct access to the port of Calcutta from North-

ern India and is consequently fed by all the large railway systems connected with it. In 1880 the Government purchased the line, paying the shareholders by annuities, but leased it again to the company to work under a contract which is terminable in 1913. The open mileage is 2,624·61 under construction or sanction 84·7, total 2,709·31. Total capital outlay (on 2,331 miles) Rs. 6,349 lakhs, gross earnings 1,015 lakhs, net earnings Rs. 632 lakhs, percentage of net earnings on capital outlay 9·96; gain to the State 263 lakhs.

### Great Indian Peninsula.

The Great Indian Peninsula Railway is the earliest line undertaken in India. It was promoted by a Company under a guarantee of 5 per cent. and the first section from Bombay to Thana was open for traffic in 1853. Sanction was given for the extension of this line *via* Poona to Raichur, where it connects with the Madras Railway, and to Jubbulpore where it meets the East Indian Railway. The feature of the line is the passage of the Western Ghats, these sections being 15½ miles on the Bhone Ghat and 9½ miles on the Thal Ghat which rise 1,131 and 972 feet. In 1900, the contract with the Government terminated and under an arrangement with the Indian Midland Railway that line was amalgamated and leased to a Company to work. The open mileage is 3,163·57, under construction or sanction 386·17, total 3,549·74. The total capital outlay on the Company's own system of 2,419·33 miles is 5,483 lakhs, gross earnings, 802 lakhs, net earnings 369 lakhs, percentage of net earnings on capital outlay 6·74; gain to the State 39 lakhs.

### Madras Railway.

The Madras Railway was the third of the original railways constructed as experimental lines under the old form of guarantee. It was projected to run in a north-westerly direction in connection with the Great Indian Peninsula Railway and in a south-westerly direction to Calicut. On the expiry of the contract in 1907 the line was amalgamated with the Southern Mahratta Railway Company, a system on the metre gauge built to meet the famine conditions in the Southern Mahratta Country and released to a large Company called the Madras and Southern Mahratta Railway Company. The mileage is 3,132·77, under construction, or sanction 11·73, total 3,144·77. The capital outlay on the Company's own system of 2,552·53 miles is 31·27 lakhs, gross earnings 353 lakhs, net earnings 161 lakhs, percentage of net earnings on capital outlay 5·16, loss to the State 24 lakhs. (The annuity payment is Rs. 73 lakhs.)

### The North-Western.

The North-Western State Railway began its existence at the Sind-Punjab-Delhi Railway, which was promoted by a Company under the original form of guarantee and extended to Delhi, Multan and Lahore and from Karachi to Kotri. The interval between Kotri and Multan was unbridged and the railway traffic was exchanged by a ferry service. In 1871-72 sanction was given for the connection of this by the Indus Valley State Railways and at the same time the Punjab Northern State Rail

way from Lahore towards Peshawar was begun. In 1886 the Sind-Punjab-Delhi Railway was acquired by the State and amalgamated with these two railways under the name of the North-Western State Railway. It is the longest railway in India under one administration. The opened mileage is 4,903.50, under construction or sanction 303.28, total 5,206.87. The statistical results of the working of the State owned 3,812.20 miles are total outlay Rs. 7,805 lakhs, gross earnings 906 lakhs, net earnings 437 lakhs, percentage of earnings on capital outlay 5.68, gain to the State 143 lakhs.

#### Oudh and Rohilkhand.

Oudh and Rohilkhand Railway was another of the lines constructed under the original form of guarantee. It began from the north bank of the Ganges running through Rohilkhand as far as Saharanpur where it joins the North-Western State Railway. It was not until 1887 that the bridge over the Ganges was completed and connected with the East Indian Railway. To effect a connection between the metre gauge systems to the North and those to the South of the Ganges, a third rail was laid between Bhurwal and Cawnpore. The Company's contract expired in 1889 when the Railway was purchased by the State and has since been worked as a State Railway. The opened mileage is 1,633.18, under construction and sanction 140.92, total 1,777.10. The total capital outlay on the State system of 1,604.14 miles is 2,017 lakhs, gross earnings 245 lakhs, net earnings 139 lakhs, percentage of net earnings on capital outlay 6.92. Gain to the State was 49 lakhs.

#### The South Indian.

The South Indian Railway was one of the original guaranteed railways. It was begun by the Great Southern India Railway Company as a broad gauge line but was converted after the seventies to the metre gauge. This line has been extended and now serves the whole of the Southern India, south of the south-west line of the Madras Railway. Between Tuticorin and Ceylon a ferry service has been arranged, but a new and more direct route to Ceylon *via* Rameswaram is to be opened at the beginning of 1917. As the original contract ended in 1907, a new contract was entered upon with the Company on the 1st of January 1908. The open mileage is 1,694.68, under construction or sanction 59.56, total 1,754.24. The statistical results of the working of the Company's system of 1,395.61 miles gives a capital outlay, 1,703 lakhs, gross earnings 270 lakhs, net earnings 131 lakhs, percentage of net earnings to capital outlay of 7.73; gain to the State 73 lakhs.

#### The Native States.

The principal Native State Railways are: The Nizam's, constructed by a company under a guarantee from the Hyderabad State; the Kathiawar system of railways, constructed by subscriptions, among the several Chiefs in Kathiawar; the Jodhpur-Bikaner Railway, constructed by the Jodhpur and Bikaner Chiefs; the system of railways in the Punjab constructed by the Patiala, Jind, Maler Kotla, and Kashmir Chiefs; and the railways in Mysore constructed by the Mysore State.

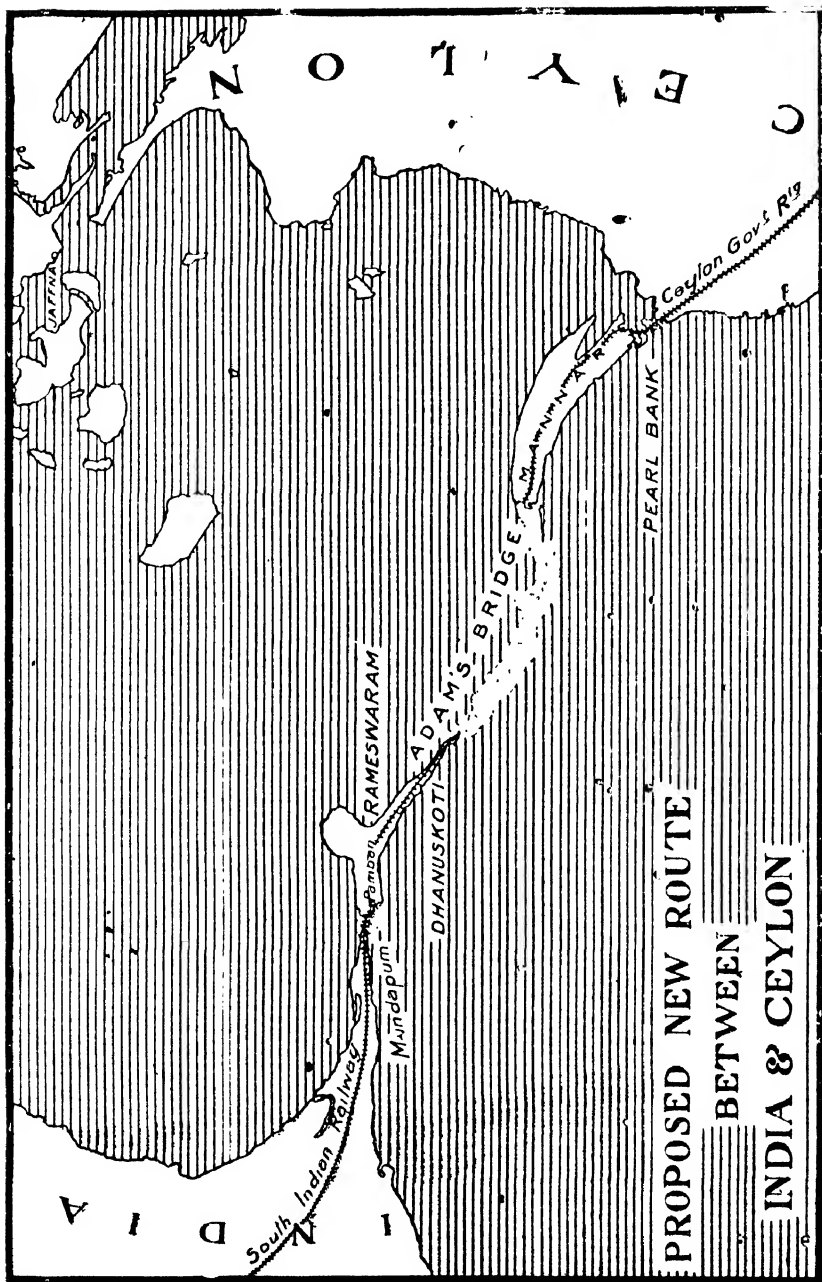
#### The Sara Bridge.

The construction of a bridge over the Lower Ganges near Sara, which was sanctioned in 1908, is making good progress. It will provide through rail communication between the fast-growing area to the north-east of the site and Calcutta. A very large traffic in wheat and seeds from the area to the north-west is also expected, and the gain in convenience, by obviating the present double transshipment and delay, is expected to lead to a large increase in the passenger traffic between Darjeeling and Shillong and Calcutta. Work on the bridge itself was begun in 1911 and it is hoped that it may be opened to traffic in 1915. It is to consist of 15 spans of 352 feet and two land spans of 75 feet, a total length of 5,430 feet. It will provide for a double line, and when it is complete the broad-gauge will be extended northward to Santalar, 52 miles from Sara, which will therefore become the changing station for Darjeeling passenger traffic to the metre-gauge system. The bridge is to be carried on 16 piers, for which well foundations 150 feet deep and 63 feet long by 37 feet wide have been sunk. The great depth of the wells, the deepest in the world, is necessary owing to the scouring action of the river, and has been obtained by direct dredging with plant electrically driven from two power-houses, one on each bank. The piers are formed of concrete blocks above the steel caissons, and of steel trestles above high flood level. A very noticeable feature of the project is the approach work, which has cost Rs. 84 lakhs. On the left bank the approach is about 4 miles long and for 2,000 feet of that length is at the height of 50 feet above the surrounding country; on the right bank the approach is three miles long. The estimated cost of the whole undertaking is Rs. 4,76,68,863. An important stage of the construction on the Sara side (left) of the river was reached in June 1913, when the first main span of girders (weighing 1,200 tons) was erected together with the service girder (weighing 870 tons) which is to perform the functions of the ordinary timber staging for the deepwater spans.

### INDIA AND CEYLON.

Works of great importance for improving the means of communication between India and Ceylon have been under consideration for many years. Part of the programme has just been carried to completion and the formal ceremony of opening a new Indo-Ceylon route is expected to take place early in 1914.

India and Ceylon are separated by a distance of 57 miles and Nature has provided the foundations for a bridge or causeway between them. The 57 miles are already partly spanned by the two islands of Rameswaram, close to the Indian coast, and Mannar on the Ceylon side, and between them lies Adam's Bridge, a series of shifting sandbanks with narrow channels between them.



PROPOSED NEW ROUTE  
BETWEEN  
INDIA & CEYLON

A careful survey was made of Adam's Bridge in 1838-39 by Lieuts. Powell and Ethersley of the Indian Navy, and in 1877 Capt. Shaw Stewart, of the Madras establishment, published a note on the question of a railway from India to Ceylon. Authentic data for a profitable discussion of a bridge project were worked out in 1894, in which year Mr. Waring, for the Government of Ceylon, and Mr. Shadbolt, for the Government of Madras, each made an independent survey and published estimates and plans for a railway connection.

Many interesting problems and proposals were set out in these last engineers' reports. Both experts were agreed that a railway was well within the resources of both capital and science. They discovered that since the survey of 1838-39 considerable alterations had taken place in the currents of the Gulf of Manaar and this pointed to the advisability of a bridge scheme rather than a causeway. They estimated the cost of bridges along Adam's Bridge between Rameswaram and Manaar at two crores and eighty lakhs rupees.

A consideration of great importance in regard to the proposal for a through railway is that the gauges of the approach lines on the Indian and Ceylon shores are different. The Indian line is metre-gauge and the Ceylon railways are built to standard gauge.

The South Indian Railway, during the years 1906-08, built a metre-gauge line across the island of Rameswaram, which is separated from the mainland by the Pamban Reef, 1½ miles long. The South Indian Railway was carried to the farthest point on the mainland of India by the opening of the Madura-Mandapan line towards the end of 1902. Railway development in Ceylon has similarly progressed.

The Ceylon system now extends to the island of Manaar. During the past two years a viaduct has been constructed connecting the South Indian Railway at Mandapan with the Rameswaram Island railway at Pamban, the nearest point on the island to the mainland. A steel viaduct with a rolling lift bridge over the Pamban Channel, which occurs in the Pamban Reef, has been provided.

The railways, therefore, approach to the northern and southern ends of Adam's Bridge. Three turbine ferry steamers specially built in England were brought out in the autumn of 1913 to carry passengers between the respective railway termini. The distance is 40 miles. During the north-east monsoon the ferry steamers will probably run on the south-west side of the islands of Rameswaram and Manaar and during the south-west monsoon the passage may be made on the north-east side of the islands, so that passengers will always have the advantage of smooth water.

Meanwhile, inquiries into the problem of the construction of a railway along Adam's Bridge are being pressed forward. Another survey has been made and is stated to show that the cost of the project would be much less than was originally estimated. The line would be 22 miles long and it is believed that the total expenditure for construction would not exceed 125 lakhs.

The new route will not at first be opened for goods traffic, but only for passenger service. It will bring people living in the southern half of India, and in eastern India, within comparatively easy reach of Colombo and the several lines of steamers which call there on their voyages between Europe and Australian and Far Eastern ports.

## INVENTIONS AND DESIGNS.

The Inventions and Designs Act (No. V.) of 1888 was replaced by the Indian Patents and Designs Act (No. 11.) of 1911, which came into force on the 1st January 1912. The object of the Act was to provide a simpler, more direct, and more effective procedure in regard both to the grant of patent rights and to their subsequent existence and operation. The changes made in the law need not here be referred to in detail. They gave further protection both to the inventor, by providing that his application should be kept secret until acceptance, and to the public, by increasing the facilities for opposition at an effective period. At the same time a Controller of Patents and Designs was established, with power to dispose of many matters previously referred to the Governor-General in Council, and provision was made for the grant of a sealed "patent" instead of for the mere recognition of an "exclusive privilege." The provisions of the Act follow with the necessary modifications those of the British Inventions and Designs Act of 1907.

The records of proceedings under the Act of 1888 show a steady, though not very rapid, increase in recent years in the number of applications for leave to file specifications. The number of applications received increased from 521 in 1902 to 807 in 1911, and the number of specifications filed (*i. e.*, of "exclusive privileges" required) from 375 to 605. The total number of applications under the Act up to the end of 1911 was 11,679, as the result of which 9,113 specifications were filed. The number of patents in force at the end of 1911 was 2,017. Only a small proportion of the applications—some 60 or 70 a year—came during the decade from Indians. The majority came from persons not resident in India. The range of inventions for which protection was sought was very wide, inventions connected with railways, electrical contrivances, and chemical appliances and preparations being most numerous.

The number of applications to register copyright in designs is relatively very small. There were 87 in 1911.

Main results of working of all Indian Railways treated as one system.

	Particulars.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
1	Mileage open at close of the calendar year .. .. Miles	23,257	29,039	29,937	30,376	31,490	32,099	32,839	33,484
2	Total Capital outlay, including territories and suspense, on open lines (in thousands of rupees) .. Rs.	3,58,51.86	3,71,27.05	3,91,86.93	4,11,91.71	4,20,83.20	4,39,04.73	4,50,06.80	4,65,15.00
3	Gross earnings (in thousands of rupees) .. .. Rs.	41,60.92	44,12.58	47,30.51	44,82.69	47,06.38	51,14.22	55,27.92	61,65.07
4	Gross earnings per mile open .. ..	14,744	15,176	15,794	14,663	14,948	15,936	16,833	18,412
5	Gross earnings per mile open per week .. ..	284	292	304	282	287	306	324	354
6	Gross earnings per train-mile .. ..	3.89	3.85	3.79	3.51	3.67	3.85	3.87	4.04
7	Total working expenses (in thousands of rupees) .. ..	19,93.30	22,02.22	24,32.21	27,00.25	26,38.48	27,15.72	28,83.92	30,15.92
8	Working expenses per mile open .. ..	7,053	7,372	8,121	8,833	8,380	8,462	8,782	9,007
9	Working expenses per train-mile .. ..	1.86	1.92	1.95	2.11	2.06	2.04	2.02	1.98
10	Percentage of working expenses to gross earnings .. .. Per cent.	47.85	49.89	51.42	60.24	56.06	53.10	52.17	48.92
11	Net earnings (in thousands of rupees) .. .. Rs.	21,74.22	22,11.36	22,98.20	17,82.44	20,67.90	22,98.50	26,44.00	31,49.15
12	Net earnings per mile open .. ..	7,689	7,904	7,673	5,830	6,568	7,474	8,051	9,405
13	Net earnings per train-mile .. ..	2.03	1.93	1.84	1.40	1.61	1.81	1.85	2.07
14	Percentage of net earnings on total capital outlay (item 2) .. Per cent.	6.07	5.96	5.86	4.33	4.81	5.46	5.87	6.77
15	Coaching train-miles (in thousands) .. .. Train-miles	33,491	37,155	43,258	47,885	48,191	48,598	50,833	52,093

Main results of working of all Indian Railways treated as one system.

	Particulars.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
16	Goods train-miles (in thousands) Train-Miles	39,712	41,693	46,869	44,875	44,065	47,690	53,219	59,922
17	Mixed train-miles (in thousands)..	29,892	31,014	30,142	29,944	30,859	31,986	33,746	34,940
18	Total, including miscellaneous train-miles (in thousands) ..	107,046	114,489	124,786	127,881	128,260	132,837	142,044	152,761
19	Unit-mileage of passengers (in thousands) ..	9,900,481	10,688,095	11,840,649	12,102,929	12,364,579	13,482,477	14,372,943	15,318,872
20	Freight ton-mileage of goods (in thousands) ..	9,040,760	9,770,574	10,840,885	9,925,830	9,340,441	12,092,916	13,858,364	15,628,595
21	Average miles a ton of goods was carried ..	178.60	165.97	174.58	159.07	133.37	184.33	187.44	199.15
22	Average rate charged for carrying a ton of goods one mile .. Pies	5.19	5.42	5.18	5.09	5.78	4.88	4.73	4.66
	<i>Average miles a passenger was carried.</i>								
23	1st class ..	98.29	100.71	100.89	100.76	103.35	99.72	111.60	106.54
24	2nd class ..	72.92	74.47	70.91	71.26	69.24	75.07	76.33	74.77
25	Intermediate class ..	63.78	64.23	59.29	58.82	54.89	52.41	57.27	51.90
26	3rd class ..	40.92	40.36	39.65	38.65	38.74	37.12	37.72	37.81
27	Season and Vendors' tickets ..	9.16	9.57	9.31	8.94	8.89	8.79	8.78	8.64
28	Total ..	39.90	39.43	38.71	37.68	37.54	36.15	36.87	36.72
	<i>Average rate charged per passenger per mile.</i>								
29	1st class ..	13.31	13.16	13.06	12.95	12.89	14.55	14.29	14.25
30	2nd class ..	5.77	5.74	5.76	5.78	5.94	6.67	6.73	6.64
31	Intermediate class ..	3.09	3.06	3.05	3.04	2.06	3.15	3.10	3.12
32	3rd class ..	2.30	2.29	2.28	2.25	2.28	2.28	2.30	2.30
33	Season and Vendors' tickets ..	1.42	1.38	1.40	1.39	1.42	1.42	1.43	1.43
34	Total ..	2.47	2.46	2.44	2.44	2.43	2.45	2.47	2.45



MILEAGE OF RAILWAY LINES IN INDIA OPEN FOR TRAFFIC AT END OF YEAR.

Railways.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
STATE LINES.										
Agra Delhi Chord*	..	..	120	120	126	126	126	126	126	126
Assam-Bengal*	..	..	775	775	775	775	775	771	790	790
Baran-Kotal*	..	..	..	..	..	..	..	..	..	..
Bengal Central.	..	..	128	1,690	1,774	1,774	1,774	1,701	1,808	1,852
Bengal-Nagpur*	..	..	125	..	..	..	..	..	..	..
Bezwada Extension*	..	..	125	..	..	..	..	..	..	..
Bhopal-Hars*	..	..	21	21	21	21	21	21	21	21
Bombay, Baroda & Central India*	..	..	13	13	13	13	13	13	13	13
Burna	..	..	504	504	504	504	504	504	504	504
Cannore-Burival	..	..	1,260	1,340	1,340	1,475	1,327	1,327	1,327	1,357
Dhone-Kurnool	..	..	80	80	80	80	80	80	80	80
East Indian	..	..	1,933	1,972	2,165	2,208	2,213	2,212	2,213	2,206
Eastern Bengal	..	..	977	1,235	1,272	1,274	1,274	1,303	1,308	1,310
Godhra-Rutlam-Nagda*	..	..	141	141	141	141	141	141	141	141
Godhra-Chanda*	..	..	1,562	1,562	1,562	1,562	1,562	1,559	1,606	1,606
Great Indian Peninsula*	..	..	805	808	810	810	813	813	813	813
Indian Midland*	..	..	124	124	124	124	124	124	124	124
Jodhpur-Hyderabad*	..	..	30	30	32	32	32	32	32	32
Jorhat Provincial State	..	..	77	214	229	243	250	275	275	275
Jubbulpore-Gondia*	..	..	59	59	59	59	59	60	60	60
Kalka-Simla	..	..	92	92	92	92	92	92	92	92
Kolrat-Thal	..	..	237	237	237	237	237	237	237	237
Lucknow-Bareilly*	..	..	2,537	2,537	2,644	2,647	2,543	2,546	2,553	2,553
Madras and Southern Mahratta*	..	..	2,537	2,537	2,644	2,647	2,543	2,546	2,553	2,553
Morappur-Dharmapuri*	..	..	296	296	296	296	296	296	296	296
Mysore*	..	..	..	..	..	..	..	..	..	..
Nagpur-Mutra*	..	..	17	17	17	17	17	17	17	17
Nagpur-Chhindwara*	..	..	17	17	17	17	17	17	17	17
Nagpur	..	..	17	17	17	17	17	17	17	17
North-Western	..	..	3,083	3,130	3,378	3,430	3,463	3,568	3,570	3,656
Nowshera-Durgai	..	..	40	40	40	40	40	40	40	40
Oudh and Rohilkhand	..	..	1,040	1,165	1,213	1,223	1,223	1,231	1,327	1,434
Palampur-Deesa*	..	..	17	17	17	17	17	17	17	17
Palampur-Ranchi*	..	..	..	..	..	..	..	..	..	..
Rajput-Dhamtari*	..	..	56	56	57	57	57	57	57	57
Rajputana-Malwa*	..	..	1,649	1,682	1,774	1,778	1,778	1,778	1,778	1,778
South-Indian*	..	..	1,082	1,123	1,123	1,207	1,323	1,323	1,323	1,323
Thimvelly-Quilon*	..	..	50	50	50	50	50	50	50	50
Tirhoot*	..	..	517	535	614	704	775	775	775	775
Tripattur-Krishnagiri*	..	..	..	..	..	..	..	..	..	..
Total	20,313	21,131	21,574	22,082	22,623	23,260	23,633	24,282	24,465	24,822

MILEAGE OF RAILWAY LINES IN INDIA OPEN FOR TRAFFIC AT END OF YEAR—contd.

Railways.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
ASSISTED COMPANIES.										
Ahmedabad-Dholka ..	..	..	33	33	33	33	33	33	33	33
Ahmedabad-Parantij ..	..	..	55	55	55	55	55	55	55	55
Amritsar-Patli ..	..	..	..	..	23	23	28	28	54	54
Arrah-Sasaram Light ..	..	..	..	..	..	..	..	..	..	61
Bakhtiarpur-Jehan Light ..	..	..	18	18	18	18	18	23	28	33
Baraset-Basirhat Light ..	..	..	..	..	..	..	..	..	..	51
Barsi Light ..	..	..	..	..	..	..	..	..	..	79
Bengal and North Western ..	..	..	22	22	26	26	26	33	33	116
Bengal Doonars ..	..	..	766	831	901	932	1,015	1,092	1,117	1,176
Bewada-Masulipatam ..	..	..	114	153	153	153	153	153	153	153
Champamer-Shivrajpur Light ..	..	..	..	..	..	..	..	..	..	52
Darjeling-Himalayan ..	..	..	..	..	..	..	..	..	..	20
Delhi-Umballa-Kalka ..	..	..	51	51	51	51	51	51	51	51
Deoghar ..	..	..	162	162	162	162	162	162	162	162
Dibrui-Sadiya ..	..	..	5	5	5	5	5	5	5	5
Hardwar-Delhra ..	..	..	78	78	78	78	78	78	86	86
Howrah-Amra ..	..	..	32	32	32	32	32	32	32	32
Howrah-Sheaknala ..	..	..	29	37	37	37	44	44	44	44
Matheran ..	..	..	20	20	20	20	20	20	20	20
Mirpur Khas-Jhudo ..	..	..	..	..	..	..	..	..	..	13
Mymensingh-Jamulpur-Jagannathganj ..	..	..	..	..	..	..	..	..	..	50
Powayen Light ..	..	..	53	51	53	54	54	54	55	55
Rohilkhand and Kumaon ..	..	..	40	40	40	40	40	40	40	40
Shahdara (Delhi) Saharanpur Light ..	..	..	54	54	118	171	203	202	202	225
South Behar ..	..	..	..	..	..	93	93	93	93	93
Southern Punjab ..	..	..	79	79	79	79	79	79	79	79
Sutlej Valley ..	..	..	425	502	580	575	575	575	576	576
Tanjore District Board ..	..	..	..	..	..	..	..	..	..	209
Tapti Valley ..	..	..	..	..	..	..	..	..	..	209
Tarkessur ..	..	..	71	99	103	103	103	103	103	103
Tezpur-Balpara ..	..	..	135	135	135	135	135	135	135	135
Thaon-Duyunzak Light ..	..	..	22	22	22	22	22	22	22	22
Thaon-Duyunzak Light ..	..	..	20	20	20	20	20	20	20	20
Total ..	2,261	2,444	2,490	2,629	2,887	3,117	3,207	3,353	3,609	3,903

\* Worked by a Company.

† Amalgamated with East Indian Railway.

MILEAGE OF RAILWAY LINES IN INDIA OPEN FOR TRAFFIC.—*contd.*

Railways.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
UNASSISTED COMPANIES.										
Dehri-Rohas Light .. .. .	..	..	..	..	..	..	..	..	..	24
Jalandhri Light .. .. .	..	..	..	..	..	..	..	..	..	3
Lado and Tikak Margherita Colliery ..	..	..	..	..	..	..	..	..	..	6
Tarakeswar-Magra Light .. .. .	..	..	..	..	..	..	..	..	..	33
Total .. .. .	42	42	42	42	42	42	42	39	39	66
NATIVE STATE LINES.										
Bhavnagar-Gondal-Junagad-Portbandar ..	334	334	334	334	334	334	338	338	374	158†
Bhavnagar .. .. .	..	..	..	..	..	..	..	..	..	..
Bhopal-Itarsi* .. .. .	..	..	..	..	..	..	..	..	..	..
Bhopal-Ujjain* .. .. .	..	..	..	..	..	..	..	..	..	..
Bina-Gonda-Baran .. .. .	..	..	..	..	..	..	..	..	..	..
Birur-Shimoga* .. .. .	..	..	..	..	..	..	..	..	..	..
Coch-Bihar .. .. .	..	..	..	..	..	..	..	..	..	..
Cutch .. .. .	..	..	..	..	..	..	..	..	..	..
Dholpur-Bari .. .. .	..	..	..	..	..	..	..	..	..	..
Dhruvadra .. .. .	..	..	..	..	..	..	..	..	..	..
Gackwar's Dabholi* .. .. .	..	..	..	..	..	..	..	..	..	..
Gackwar's Mohana* .. .. .	..	..	..	..	..	..	..	..	..	..
Gondal-Portbandar .. .. .	..	..	..	..	..	..	..	..	..	..
Gwalior Light .. .. .	..	..	..	..	..	..	..	..	..	..
Hindupur* .. .. .	..	..	..	..	..	..	..	..	..	..
Hyderabad-Godavari Valley* .. .. .	..	..	..	..	..	..	..	..	..	..
Jaipur .. .. .	..	..	..	..	..	..	..	..	..	..
Jammu and Kashmir .. .. .	..	..	..	..	..	..	..	..	..	..
Jalandhri .. .. .	..	..	..	..	..	..	..	..	..	..
Jalgaon-Hajkot .. .. .	..	..	..	..	..	..	..	..	..	..
Joधpore-Bikaner .. .. .	..	..	..	..	..	..	..	..	..	..
Total .. .. .	42	42	42	42	42	42	42	39	39	66

\* Worked by a Company.

MILEAGE OF RAILWAY LINES IN INDIA OPEN FOR TRAFFIC AT END OF YEAR—*continued*.

Railways.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
<b>NATIVE STATE LINES.—<i>contd.</i></b>										
Junagad	..	..	..	..	..	..	..	..	..	894
Kanpur-Chachan*	..	..	..	..	..	..	..	..	..	22
Kolar Gold Fields*	..	..	..	..	..	..	..	..	..	10
Konjarpur*	..	..	..	..	..	..	..	..	..	29
Kodliana-Dhuri-Jakhai	..	..	..	..	..	..	..	..	..	79
Morbi	..	..	..	..	..	..	..	..	..	93
Morbi-Jam	..	..	..	..	..	..	..	..	..	32
Mysore-Nanjangud*	..	..	..	..	..	..	..	..	..	16
Nagda-Ujjain*	..	..	..	..	..	..	..	..	..	34
Nizam's	..	..	..	..	..	..	..	..	..	330
Pandhri Light*	..	..	..	..	..	..	..	..	..	25
Pondicherry*	..	..	..	..	..	..	..	..	..	34
Pipar Road-Bahvi Light	..	..	..	..	..	..	..	..	..	19
Rajppla*	..	..	..	..	..	..	..	..	..	37
Rajppla-Bhatnira	..	..	..	..	..	..	..	..	..	107
Sandil*	..	..	..	..	..	..	..	..	..	5
Shoranur-Cochin*	..	..	..	..	..	..	..	..	..	65
Shoranur-Qullon*	..	..	..	..	..	..	..	..	..	58
Tanjpur-Chitoor	..	..	..	..	..	..	..	..	..	67
Vijapur-Kalot-Kail*	..	..	..	..	..	..	..	..	..	42
Total	2,240	3,265	3,385	3,468	3,471	3,517	3,620	3,742	3,882	3,974
<b>FOREIGN LINES.</b>										
Kanikal-Peralam*	..	..	..	..	..	..	..	..	..	15
Pondicherry*	..	..	..	..	..	..	..	..	..	8
West of India Portuguese*	..	..	..	..	..	..	..	..	..	51
Total	74	74	74	74	74	74	74	74	74	74
Grand Total	25,980	26,956	27,565	28,295	29,097	30,010	30,576	31,490	32,099	32,833

\* Worked by a Company.

† Formerly worked as part of the Bhavnagar-Gondal-Junagad-Portbandar Railway.

## Irrigation in India.

In the West irrigation is a rare luxury, designed where it exists to increase the productivity of a soil sure of a certain crop under a copious and well distributed rainfall. In great parts of the East, and especially in India, it is a necessity to existence. For in India there are large tracts, such as the deserts of Sind and the South-West Punjab, which are practically rainless; there are others, such as the Deccan plateau, where cultivation is exceedingly precarious, owing to the irregularity of the rainfall and the long intervals when the crops may be exposed to a blazing sun and a desiccating wind; there are some crops, like rice and sugar-cane, which, except in a few highly favoured districts, can only be matured by the aid of irrigation. There are great areas where a single crop, which is called the *kharif*, or rain crop, can in normal years be raised by the unassisted rainfall, but where the second crop, the *rabi* or cold weather crop, is largely dependent on irrigation. Inasmuch as in India sixty-five per cent. of the population is still dependent upon agriculture for the means of livelihood, this brief summary indicates the enormous importance of irrigation to the community.

### Its Early History.

It is natural, in such conditions, that irrigation in India should have been practiced from time immemorial. In the history and imagery of the East, there is no figure more familiar than the well, with primitive means for raising the water, followed to-day much as they were in Bible days. In the early records of the peoples of India, dating back to many years before the Christian era, there are frequent references to the practice of irrigation. Wells have been in use from time immemorial; most of the innumerable tanks in Southern India have been in use for many generations; the practice of drawing off the flood waters of the Indus and its tributaries by means of small inundation canals has been followed from a very early date; and in the submontane districts of Northern India are still to be found the remains of ancient irrigation channels, which have been buried for centuries in the undergrowth of the forests. But in the direction of constructing large and scientific works for the utilisation of the surplus waters of the great river little was done before the advent of British rule, and they are comparatively of recent date.

### The State Intervenes.

Irrigation works in India may be divided into three main heads—wells, tanks and canals. The greatest and the most impressive are the canals, and these may arrest attention first, because they constitute one of the most enduring monuments to British rule. They have in British India been constructed by direct State agency. In the early days of modern irrigation certain works in the Madras Presidency were carried out by a guaranteed company, and the Orissa canal project was commenced through the same agency. Both Companies fell into difficulties, and the system into disfavour; during the Viceroyalty of Lord Lawrence it was decided that all irrigation works which promised a reasonable return on the capital expenditure

should be constructed through direct agency, and should be constructed by the State from loan funds as productive public works.

### The British Inheritance.

The British Government in India inherited a few major irrigation works. One of these was the Grand Anicut—the local term for barrage—stretching across the width of the Cauvery River in Madras. In the Punjab there were a few canals, chiefly inundation—that is above the normal bed of the river and fed from the flood current—constructed by the Muhammedan and Sikh rulers, and owing to its proximity to Delhi the waters of the Jumna were brought to the neighbourhood of the city by the Mughals. It is doubtful if these works ever irrigated any considerable areas or conferred much benefit on the people, but they suggested the model on which the British engineers worked. In Southern India Sir Arthur Cotton constructed the upper Anicut across the Coleroon River, so as to secure the full level required for the utilisation of the Grand Anicut across the Cauvery. He also designed the works which, constructed and improved at an outlay of three crores, irrigate more than two million acres in the Godavari and Kistna deltas. In Northern India Sir Probyn Cautley constructed the great Ganges Canal, which takes off from the river near Hardwar, and which in magnitude and boldness of design has not been surpassed by any irrigation work in India or elsewhere. In this way were laid the foundations of the irrigation system in India. The work was gradually pushed forward. In Northern India a great system of canals was constructed, chiefly in the Punjab and the United Provinces. Some of these, like the great Chenab Canal, ought to be classed amongst the wonders of the world. It irrigates nearly two million acres, or about two-fifths of the cultivable area in Egypt, with an ordinary discharge of eleven thousand cubic feet per second, or about six times that of the Thames at Teddington. The Chenab and the Jhelum Canals brought under irrigation great areas of Government waste, and thereby allowed the system of State colonisation, which relieved the congestion on the older villages of the Punjab, and established colonies of over one million of people on what had been the desolate abode of a handful of nomads. In the Bombay Deccan a few protective works were constructed, like Lake Kille and Lake Whiting, drawing their supplies from the Ghats and spilling them over the arid tracts of the Deccan. In Madras there was completed the boldest and most imaginative irrigation work in the world; by the device of constructing a reservoir at Periyar, on the outer slopes of the ghats, and carrying the water by means of a tunnel through the intervening hill the Madras Government turned the river back on its watershed and poured its waters over fertile lands starved by want of moisture. But these Deccan works did not pay. The cultivators would not use the water in years of good rainfall, and there was not enough to go far in seasons of drought; the inevitable result, of such conditions was to concentrate attention upon the remunerative works on the rivers of the Punjab, and to leave protective irrigation to wilt for want of funds.

**The Irrigation Commission.**

In order to substitute policy for spasmodic effort, the Irrigation commission was appointed by Lord Curzon's Government in 1901. It made a detailed survey of the conditions of the country, and produced the report which is the foundation of Indian Irrigation policy to-day. The figures compiled by the Commission illustrate the progress which had been made up to that period. They showed that out of an area of 226 million acres annually under crop in the irrigating provinces of British India, in round numbers 44 millions acres, or 19½ per cent, were ordinarily irrigated. Of the total area irrigated 18½ million acres or 42 per cent was watered by State works (canals and tanks), and 25½ million acres, or 58 per cent, from private works, of

which rather more than one half was from wells. During the previous quarter of a century the area irrigated by Government works had been increased by 8 million acres, or by eighty per cent, and the Commission estimated that during the same period the area under private irrigation had increased by at least three million acres or a total addition to the irrigated area in British India of 11 million acres or 33 per cent. Including the Native States the area under irrigation annually within the British Empire was placed at 53 million acres (19 million from canals, 16 million from wells, 10 million from tanks, and 8 million from other sources). The financial results for works of all classes are shown in the following table:—

Class of Work.	Capital Outlay to End of 1900-01. Lakhs of Rupees.	Interest charges at 4 per cent on Capital Outlay. Lakhs of Rupees.	Net Revenue in 1900-01. Lakhs of Rupees	Net Revenue less charges for Interest. Lakhs of Rupees.
Major Works . . . .	36,63.72	146.55	259.70	113.15
Minor Works for which capital accounts have been kept.	320.04	12.80	19.18	6.38
Other Minor Works . . . .	....	....	87.87	87.87
Total . .	39,83.76	159.35	366.75	207.40

In round numbers, the State irrigation works then yielded a net revenue after meeting all charges, including interest, of about two crores of rupees and irrigated annually over nineteen million acres.

**The Commission's Programme.**

The Commission reported that the field for the construction of new works of any magnitude on which the net revenue would exceed the interest charges was limited, being restricted to the Punjab, Sind and parts of Madras—tracts for the most part not liable to famine. They recommended that works of this class should be constructed as fast as possible, not only because they would be profitable investments, but also because they would increase the food supply of the country. Then addressing themselves to the question of famine protection, they worked out a very interesting equation. Taking the district of Sholapur, in the Bombay Deccan, perhaps the most famine susceptible district in India, they calculated that the cost of famine relief in it was 5 lakhs of rupees a year. From this deduction, and making allowance for the advantage of famine avoidance as compared with famine relief, they said that the State was justified in protecting the land in such a district at a cost of 221 rupees per acre. For the general protection of the Bombay Deccan they recommended canals fed from storage lakes in the Ghats, where the rainfall has never been known to fall even in the driest years. For Madras they recommended the investigation of the old Tungabhadra project, and of a scheme for storage work on the Kistna. They proposed that Government should undertake the construction of protective works for the rice-growing districts of the Central Provinces and the Ken Canal project in Bundelkhand. The Commission further sketched out a rough programme of new major works to be constructed in different

parts of India, which would cost not less than 44 crores of rupees and would result in an increase of 6,500,000 acres to the irrigated area. They estimated that the construction of these works would impose a permanent yearly burden of nearly 74 lakhs on the State, through the excess of interest charges on capital cost over the net revenue produced from the works. Against this would have to be set the reduction in the cost of future famines resulting from the construction of the works, which the Commission put at 31 lakhs per annum. The balance of 43 lakhs would represent the net annual cost of the works to the State, or the price to be paid for the protection from famine which the works would afford, and for all other indirect advantages which might be attributed to them.

**The New Policy.**

The principal effect of the Irrigation Commission's report was to substitute policy for spasmodic effort, and the progress since made has been remarkable. On the North-West Frontier there is approaching completion the Upper Swat Canal, which taking out of the Swat River at Amandara passes the Malakand mountains through a tunnel, rushes down the steep torrent bed of the Dargal Valley, and will then irrigate the fertile land at the foot of the hills. The estimated cost is Rs. 182 lakhs (£1,216 millions) the annual irrigation 381,562 acres, and the return on capital cost 8 per cent. The value of this canal is not to be measured in figures. The region where the drill and the hammer are now heard was ablaze with tribal warfare so recently as 1897, and the canal and the locomotive have proved far more effective means of taming the

fractious tribesmen than shrapnel and bullets. Other works are designed in the North-West and in Baluchistan, but at present the whole labour force is absorbed by the Upper Swat Canal.

### The New Works.

The most dramatic irrigation work in the country is now approaching completion in the Punjab. It is commonly called the Triple Project. The problem which faced the engineers was one of unusual complexity. The whole cold weather flow of the Chenab and the Ravi is absorbed by existing works. But in the north is the Jhelum, whose cold weather flow was running largely to waste. The question was how to bring the surplus waters of the Jhelum to the desolate area of Crown waste called the Lower Bari Doab. The first suggestion was to carry the water direct, but this was financially impracticable. The waters of the Jhelum are now taken off and after enough has been utilised to irrigate a new  $\text{c}\text{c}$  of 345,000 on the Upper Jhelum, the surplus is carried to the Chenab and discharged into that river above the existing weir at Khanki, near Wazirabad. This allows the use of an equivalent amount of the cold weather flow of the Chenab for other purposes. It is drawn off at Merali, and part of it used to water the 648,000 acres commanded by the new Upper Chenab Canal. The surplus is taken off by another canal, it crosses the Ravi River by what is termed a "level crossing" at Bulloki, and is then poured over the Lower Bari Doab, where it will irrigate a further 878,000 acres. The effect of this great work, which is now approaching completion, will be to irrigate an area of 1,871,235 acres a year, at a capital cost of £6,912,132, to produce a net revenue of £518,550 and to return 7.5 per cent. on the capital outlay.

### United Provinces and Bombay.

In the United Provinces the last decade has been one of unparalleled activity, though there is no single work to challenge the Triple Project; a great system of productive works south of the Jumna and Ganges will thoroughly protect a very large part of the area which is subject to famine and scarcity. In the Bombay Deccan a beginning has been made with the chain of

works, fed from reservoirs in the Ghats, which will break the back of any future drought. The Godavari Canals, costing Rs. 95 lakhs, and irrigating 69,919 acres are nearly finished; the Pravara Canal and the Nira Right Bank Canal, costing respectively Rs. 86 lakhs, and Rs. 257 lakhs, and irrigating 49,440, and 190,000 acres, are under construction. These works are situated in parts of the Deccan which are liable to scarcity and famine and are the most important protective works in India. In the Central Provinces productive and protective works, chiefly comprising large canals with storage from the Mahanadi, Wainganga, and Tandula rivers, with various tank projects, have been sanctioned, estimated to cost Rs. 395 lakhs. In Madras the work has been chiefly investigation and preparation. The projects will add 20 per cent. to the present irrigated area in the Presidency. In Bengal the Tribeni Canal in Bihar, costing Rs. 75 lakhs, will protect, though at heavy cost, an area very liable to famine. In Burma the scope for irrigation works is small. Protective embankments have however proved of great value.

### Results of the New Policy.

We can now turn to the results of this activity. The following table shows the developments effected on works now in operation in the twenty-four years ending with the triennium 1908-11. The percentages of the advancements in this triennium over the figures of 1887-90 are:—Capital outlay 55; irrigated area 68; net revenue 125; return on capital outlay 43; and on net profit 200.

The average capital outlay for the triennium 1908-11 was £31,491,253. After meeting all the charges for maintaining and operating the works, and also all interest charges, the net profit which accrued to Government during the twenty-four years ending with 1910-11 was £35,087,835, and this more than repaid the entire capital outlay on the works in operation from the commencement of British rule up to the end of the period mentioned. In the following table the areas are in millions of acres and the amounts in millions of pounds sterling.

Triennium.	Capital Outlay.	Area.	Value of Crops.	Direct Profit to Government.	Percentage of Net Revenue on Capital Outlay.
1908-11	31.49	22.10	54.74	2.28	10.76
1905-08	30.32	21.88	48.25	2.03	10.44
1902-05	28.78	20.09	43.66	1.68	9.71
1899-02	26.66	19.06	39.67	1.55	9.63
1896-99	25.01	17.55	37.10	1.53	10.09
1893-96	22.94	14.49	29.88	1.03	8.25
1890-93	21.62	13.85	26.87	0.83	7.60
1887-90	20.42	13.16	24.33	0.76	7.51

These figures take no account of the indirect advantages of irrigation. They are:—The produce of the country is greatly increased; the railway receipts are enhanced; famine expenditure is diminished and misery and economic disturbances reduced. Nor do they take account of the progress made in Native States, some of which, like Gwalior and Mysore, have shown conspicuous liberality.

### Future of Irrigation.

It is sometimes asserted, by those who take only a superficial view of Indian irrigation that we are approaching the end of the programme of productive works. There could be no greater fallacy. The scheme of great works is still vast. There is now before the Secretary of State a project for the improvement of irrigation in Sind, by the construction of a weir at Sukk,

and the digging of a series of main canals, the substitution of perennial for inundation canals, and flow instead of lift irrigation. The cost of this is estimated at Rs. 81 lakhs (£5.211 millions). This scheme is estimated to confer the benefits of assured irrigation on 1,347,347 acres, which now receive a precarious supply, and to add 588,703 acres of new irrigation. The return on capital expenditure estimated at 5.10 per cent. with an enhanced land revenue, and 4.17 per cent. if the land revenue is not enhanced. The Lower Sutlej Canal in the Punjab, which will use the Beas water, now under investigation, will irrigate a million and a half acres. The great Sarda-Ganges-Jamna feeder, in the Punjab and the United Provinces, now under investigation, would cost £4,500,000, return 7 per cent. on the capital, and benefit twenty-five districts and three Native States. If, after the construction of the Sukker Barrage there are found to be surplus waters in the Indus, the Titanic Sind-Sagar scheme may become practicable. The scope for irrigation in India is apparent from the fact that in addition to works under construction or sanctioned, there are under consideration or investigation estimated to cost £27½ millions.

### Economic Changes.

Nor does this estimate represent anything like the full possibilities of irrigation in India. The country is undergoing a great economic revolution. The rise in the prices of produce, the increased economic strength of the people, are making profitable works which a decade ago were economically impracticable. This process will continue. The indirect benefits of irrigation are more fully realised. In no case is this more marked than in the railway receipts. The Chenab and the Jhelum canals have been the principal factors in converting the North-Western Railway from a drain on the Exchequer into a source of profit. The accumulation of capital, the spread of the co-operative credit movement, the increasing use of power, such as oil engines working pumps and cheap electricity from hydro-electric projects, will bring under cultivation millions of acres of fallow and waste. It may be said with confidence that for a generation at least the demands for irrigation in India will more than absorb the money-producing power of the Government.

### Irrigation Dues.

The charges for irrigation, whether taken in the form of enhanced land revenue or of occupiers' and owners' rates, vary very much, depending on the kind of crop, the quantity of

water required for it and the time when it is required, the quality of the soil, the intensity or constancy of the demand, and the value of irrigation in increasing the outturn. In the immediate vicinity of Poona a rate of Rs. 50 an acre is paid for sugarcane. This is quite an exceptional rate, it obtains over only a limited area, and is made practicable only because the cultivators, by high manuring, can raise a crop valued at nearly eight-hundred rupees an acre. On other parts of the Mutha canal the rate varies from Rs. 40 to Rs. 12, and on other canals in the Bombay Deccan from Rs. 25 to Rs. 10 per acre. In Madras the maximum rate for sugarcane is Rs. 10, and in the Punjab it does not exceed Rs. 8-8. The rate charged for rice varies in Madras from Rs. 5 to 2, and in Bengal from Rs. 2-8 to Rs. 1-8 per acre. In both these provinces irrigation is practically confined to rice; in the Punjab, where this crop is not extensively grown, the rate varies from Rs. 7 to Rs. 3-4 per acre. The ordinary rate in the Punjab for wheat, which is the principal crop, varies from Rs. 4-4 to Rs. 3-12, and for fodder crops from Rs. 3 to 2-8 per acre. The average rate realised from major works for irrigation of all kinds is about Rs. 3-8 per acre, the provincial averages being Rs. 1-9 in Sind and Bengal; Rs. 3-4 in the Punjab; Rs. 4-8 in Madras, the United Provinces and the Bombay Deccan. The charges for irrigation may be taken as varying from 10 to 12 per cent. of the value of the crop, except in Bengal and the Bombay Deccan, where the average is little more than six per cent.

### Canals and Navigation.

Twenty years ago a great deal was heard about the desirability of constructing navigation canals, either in conjunction with irrigation, or for transport, pure and simple. The idea is now exploded. It received a certain stimulus from the unprofitable character of Indian railways, and the handsome earnings of the irrigation works; it received its quietus when the railways turned the corner. Broadly speaking it may be said that navigation and irrigation rights clash; navigation is not only costly, but it cannot be maintained during the season of short supply, except to the detriment of irrigation. Outside the deltaic tracts of Bengal, Orissa, Madras and Sind, navigable canals will never be of much use for the purpose of inland navigation. There is however considerable scope for connecting canals to improve the facilities for navigation on the great river system of Eastern Bengal. This is a question which is now engaging the attention of the Government.

### WELLS AND TANKS.

So far we have dealt only with the great irrigation schemes. They are essentially exotic, the products of British rule; the real eastern instrument is the well. The most recent figures give thirty per cent. of the irrigated area in India as being under wells. Moreover the well is an extremely efficient instrument of irrigation. When the cultivator has to raise every drop of water which he uses from a varying depth, he is more careful in the use of it; well water exerts at least three times as much duty as canal water. Again, owing to the cost of lifting, it is generally used for high grade crops. It is estimated that well-irrigated lands produce at

least one-third more than canal-watered lands. Although the huge areas brought under cultivation by a single canal scheme tend to reduce the disproportion between the two systems, it must be remembered that the spread of canals increases the possibilities of well irrigation by adding, through seepage, to the store of subsoil water and raising the level.

### Varieties of Wells.

Wells in India are of every possible description. They may be just holes in the ground, sunk to subsoil level, used for a year or two and then allowed to fall into decay. These are



temporary or kacha wells or they may be lined with timber, or with brick or stone. They vary from the kacha well costing a few rupees, to the masonry well, which will run into thousands, or in the sandy wastes of Bikanir, where the water level is three hundred feet below the surface, to still more. The means of rising the water vary in equal degree. There is the *picottah*, or weighted lever, raising a bucket at the end of a pivoted pole, just as is done on the banks of the Nile. This is rarely used for lifts beyond fifteen feet. For greater lifts bullock power is invariably used. This is generally harnessed to the *mot*, or leather bag, which is passed over a pulley overhanging the well, then raised by bullocks who walk down a ramp of a length approximating to the depth of the well. Sometimes the *mot* is just a leather bag, more often it is a self-acting arrangement, which discharges the water into a snmp automatically on reaching the surface. By this means from thirty to forty gallons of water are raised at a time, and in its simplicity, and the ease with which the apparatus can be constructed and repaired by village labour, the *mot* is unsurpassed in efficiency. There is also the Persian wheel, an endless chain of earthenware pots running round a wheel. Recently attempts have been made, particularly in Madras, to substitute mechanical power, furnished by oil engines, for the bullock. This has been found economical where the water supply is sufficiently large, especially where two or three wells can be linked. Government have systematically encouraged well irrigation by advancing funds for the purpose and exempting wellwatered lands from extra assessment due to improvement. These advances, termed *takari*, are freely made to approved applicants, the general rate of interest being 4 per cent. In Madras and Bombay ryots who construct wells, or other works of agricultural improvement, are exempt

from enhanced assessment on that account. In other provinces the exemption lasts for specific periods, the term generally being long enough to recoup the owner the capital sunk.

### Tanks.

Next to the well, the indigenous instrument of irrigation is the tank. The village or the roadside tank is one of the most conspicuous features in the Indian scene. The Indian tank may be any size. It may vary from a great work like Lakes Tife and Whiting in the Bombay Presidency or the Periyar Lake in Travancore, holding up from four to seven billion cubic feet of water, and spreading their waters through great chains of canals, to the little village tank irrigating ten acres. They date back to a very early stage in Indian civilisation. Some of these works in Madras are of great size, holding from three to four billion cubic feet, with water spreads of nine miles. The inscriptions of two large tanks in the Chingleput district of Madras, which still irrigate from two to four thousand acres are said to be over 1,100 years old. Tank irrigation is practically unknown in the Punjab and in Sind, but it is found in some form or other in all other provinces, including Burma, and finds its highest development in Madras. In the ryotwari tracts of Bombay and Madras all but the smallest tanks are controlled by Government. In the zemindari tracts only the large tanks are State works. According to the latest figures the area irrigated from tanks is about eight million acres, but in many cases the supply is extremely precarious. So far from tanks being a refuge in famine they are often quite useless inasmuch as the rainfall does not suffice to fill them and they remain dry throughout the season. The value of the crops raised on irrigated lands in India in 1911-12 was Rs. 68½ crores.

## CANAL COLONIES.

The canal colonies represent the extreme case of improvement in agricultural conditions effected by irrigation. In the Punjab uplands now watered by the Lower Chenab and Lower Jhelum Canals, irrigation has completely altered the face of the country, so that it supports in unparalleled prosperity a population numbering a hundred to every one of its former poverty-stricken denizens, while land once refused as a gift sells with ease at £15 an acre. The largest of the canal colonies, the Chenab Colony, on the Lower Chenab Canal, lies in the Rechna Doab, between the Chenab and Ravi Rivers, and has a total area of some 3,900 square miles. This area was, until 1892 sparsely inhabited by nomad pastoral tribes, whose total numbers were estimated at less than 70,000. Cultivation was rendered possible only by the construction of the Chenab Canal. As fast as the canal and its distributaries were constructed, the land (which was waste and owned by Government) was allotted to various classes of grantees, the bulk of the grants being made to immigrant peasants, including men from the best agricultural districts in the Province. Since its foundation the colony has enjoyed remarkable prosperity. The nomads to whom a large portion of the land was allotted, though without any previous know-

ledge of agriculture, assimilated the practices of their new neighbours with extraordinary success, and the whole colony is now as well cultivated as almost any part of India. The work of colonisation began in 1892; by 1901 the population had increased to over 791,000 and at the end of 1901-02 some 2,470 square miles out of a total allottable area of about 2,660 square miles had been allotted. In September 1912 the allottable area was returned at 3,340 square miles, and the area actually allotted at 2,870 square miles, while the total population had risen to over 1,111,000. The export of wheat from the Lyallpur district in the last year of the decade reached the total of 150,000 tons.

The Jhelum Canal Colony, on the Lower Jhelum Canal, occupies some 900 square miles of State land in the Shahpur District, and is a more recent development. Colonisation began in 1902, and was conducted on lines similar to those adopted in the Chenab Colony, but a large proportion of the grants were made on the condition that a suitable mare should be maintained for breeding purposes. Between 1906, when an informal census was taken, and 1911 the population of the colony proper increased from 73,734 to 161,806. Up to September 1912 some 630 square miles had

been allotted out of an allottable area of about 780 square miles.

The Chunian Colony, a much smaller colony on the Bari Doab Canal in the Lahore District, dating from 1897, was returned in 1912 as having a total allottable area of less than 139 square miles, of which practically the whole had been allotted. The population was 16,458 in 1901 and 43,494 in 1911.

Other old canal Colonies in the Punjab such as the Sohag-Para Colony in the Montgomery district, and the Sidhnai Colony in the Mooltan district, had by the beginning of the period under review reached their full development and become merged in the surrounding districts. Before the end of the decade colonisation in the newer colonies also had been practically completed, and their administra-

tion had been almost completely assimilated to that of ordinary districts.

Colonisation has also been carried out on a considerable scale since 1901 on the Jamrao, Nasrat, and Dad canals in Sind.

Schemes for colonisation on the canals included in the Punjab Triple Canal Project are being prepared.

A concession of some importance was made to peasant colonists in the Punjab in 1910, when it was decided to allow them to purchase proprietary rights, on very favourable terms, in all colonies except the Jhelum Colony. The concession was made possible by the passing of the Alienation of Land Act, which secures in another way the result that the former restriction of the peasant's right to an inheritable right of occupancy was intended to achieve.

### Percentage of Irrigated Area.

A comparison of the acreage of crops matured by means of the Government Irrigation system, with the total area under cultivation in the several provinces, is given below :—

Province.	Net area cropped.	Area irrigated by Government irrigation works.	Percentage of irrigated area to total cropped area.	Capital cost of Government irrigation works to end of 1911-12 in lakhs of rupees.	Estimated value of crops raised on areas receiving State irrigation, in lakhs of rupees.
	Acrea.	Acrea.	Per cent.		
Burma .. .. .	13,710,000	1,130,000	8.2	201	506
Bengal .. .. .	32,885,000	915,000	2.8	883	338
United Provinces of Agra and Oudh.	35,000,000	2,442,000	6.9	1,167	1,202
Ajmer-Merwara .. ..	350,000	19,000	5.3	35	5
Punjab .. .. .	21,486,000	7,703,000	35.8	1,168	2,380
North-West Frontier ..	2,689,000	225,000	8.4	63	80
Sind .. .. .	4,113,000	2,765,000	67.2	314	718
Bombay Deccan .. ..	25,351,000	289,000	1.1	415	114
Central Provinces (excluding Berar.)	17,746,000	28,000	0.16	82	10
Madras .. .. .	37,380,000	7,125,000	19.06	1,082	1,491
Baluchistan .. ..	Not known	4,000	..	29	1.42

## Statistical Results.

## STATE IRRIGATION WORKS IN INDIA.

In the following Statement the Capital Expenditure is in Thousands of Pounds Sterling, and the Area of Irrigation in Thousands of Acres.

Province.	Outlay { Area	Works in Operation in 1911-12.		Under Construction.		Prepared Projects.		Under in- vestigation.	Total of Columns 2, 3, 5, 6 and 7.
		1	2	Sanctioned Works.	Expenditure on Works, Column 2, up to end of 1911-12.	Sanctioned in 1912-13.	Under con- sideration of Government of India.		
		1	2	3	4	5	6	7	8
North-West Frontier.	{ £ (thousands). Acres "		417	1,216	572	....	....	....	1,633
Punjab ..	{ £ " Acres "		225	332	....	....	....	....	607
Madras ..	{ £ " Acres "		7,787	6,912	4,336	....	1,256	4,000	19,955
United Provinces ..	{ £ " Acres "		7,775	1,871	....	....	350	2,000	11,996
Sind ..	{ £ " Acres "		6,551	361	139	....	8,264	3,267	18,443
Bombay ..	{ £ " Acres "		7,312	38	....	....	1,113	414	8,877
Bengal ..	{ £ " Acres "		7,423	331	354	401	3,788	117	12,110
Central Provinces ..	{ £ " Acres "		2,424	92	....	132	1,324	51	4,013
Baluchistan ..	{ £ " Acres "		2,095	....	....	....	5,211	....	7,307
Rajputana ..	{ £ " Acres "		3,037	....	....	....	1,936	....	4,973
Burma ..	{ £ " Acres "		2,137	1,375	679	1,715	....	1,250	6,497
Total ..	{ £ " Acres "		208	135	....	190	....	132	755
			4,795	503	367	....	....	....	4,898
			223	114	....	....	....	96	2,361
			466	886	183	913	....	36	3,851
			423	348	....	439	....	185	387
			122	80	70	....	....	36	45
			4	4	....	....	....	....	320
			230	....	....	....	....	....	19
			19	690	439	....	....	....	1,704
			1,005	132	....	....	....	....	1,257
			1,105	....	....	....	....	....	....
Total ..	{ £ " Acres "		32,649	12,413	7,214	3,029	18,519	8,915	75,530
			23,120	3,136	....	731	4,723	2,669	34,429

## Buildings and Roads.

Under this head is classed all work undertaken by the Department of Public Works that does not fall within Railways and Irrigation. The table below shows the total receipts and expenditure, Imperial and Provincial, under the head Civil Works, for each year, as stated in the accounts of the Government of India, with details by provinces for 1911-12 :—

	Receipts.		Expenditure.	
	Imperial*.	Provincial†.	Imperial*.	Provincial†.
	£	£	£	£
1902-03 .. ..	47,812	154,092	587,632	2,347,103
1903-04 .. ..	44,571	209,490	668,599	2,668,735
1904-05 .. ..	45,484	176,927	770,101	2,697,195
1905-06 .. ..	45,467	169,165	793,243	3,020,385
1906-07 .. ..	51,565	185,856	718,897	3,262,611
1907-08 .. ..	21,313	198,184	797,501	3,478,623
1908-09 .. ..	28,129	259,809	780,215	3,715,680
1909-10 .. ..	34,000	234,785	652,704	3,483,203
1910-11 .. ..	52,685	241,118	714,166	3,822,501
1911-12 .. ..	70,256	256,668	833,953	4,619,259

\* Including receipts and expenditure in England, and receipts and expenditure by civil officers from Imperial Funds.\*

† Including receipts and expenditure by civil department.

### Details by Provinces.

	Receipts.	Expenditure.
	1911-12.	1911-12.
	£	£
India, General .. ..	34,033	151,869
Central Provinces .. ..	47,120	435,774
Burma .. ..	20,662	689,552
Eastern Bengal and Assam .. ..	23,414	461,696
Bengal .. ..	48,221	757,116
United Provinces .. ..	30,764	519,831
Punjab .. ..	46,226	467,234
N.-W. Frontier Province .. ..	9,117	155,720
Madras .. ..	18,522	762,270
Bombay .. ..	48,814	966,050
Charges in England .. ..	....	84,703
Total .. ..	326,024	5,453,212

The totals under the different heads of Expenditure in 1911-12 are shown below :—

	Imperial.	Provincial.
	£	£
Civil Buildings—		
New Works .. ..	304,648	1,216,839
Repairs .. ..	108,447	282,956
Communications—		
New Works .. ..	45,528	280,191
Repairs .. ..	92,119	815,884
Miscellaneous Public Improvements—		
New Works .. ..	14,645	467,945
Repairs .. ..	2,914	130,293
Establishment .. ..	117,393	591,140
Tools and Plant .. ..	10,435	54,274
Other Expenditure .. ..	48,483	799,365
Suspense .. ..	13,856	—10,622
Total .. ..	833,953*	4,619,259

\* Including outlay in England, £75,486 on account of leave allowances, passages, etc. According to the latest details there are 203,000 miles of road in India.

## Post Office.

The control of the Post Office of India is vested in an officer designated Director-General who works in subordination to the Government of India in the Department of Commerce and Industry. The superior staff of the Direction, in addition to the Director-General himself, consists of two Deputy Directors-General (who are officers of the rank of Postmaster-General), four Assistant Directors-General (whose status is similar to that of Deputy Postmasters-General), and two Personal Assistants (who are selected from the staff of Superintendents).

For postal purposes, the Indian Empire is divided into eight circles as shown below, each in charge of a Postmaster-General:—Bengal, Bombay, Burma, Central, Eastern Bengal, and Assam, Madras, Punjab and North-West Frontier, and United Provinces. The Central Circle comprises roughly the Central Provinces and the Central India and Rajputana Agencies. The construction of a new Bengal Circle and a Bihar and Orissa Circle in place of the present Bengal and Eastern Bengal and Assam Circles has been deferred temporarily, but will, it is believed, be carried out in the very near future.

The Postmasters-General are responsible to the Director-General for the whole of the postal arrangements in their respective circles, with the exception of those connected with the conveyance of mails by railways and inland steamers which are entrusted to four officers bearing the designation of Inspector-General of Railway Mail Service and Sorting. All the Postmasters-General are provided with Personal Assistants, while those in charge of the largest circles are also assisted by Deputy Postmasters-General. The eight Postal Circles and the jurisdictions of the four Inspectors-General are divided into Divisions each in charge of a Superintendent; and each Superintendent is assisted by a certain number of officials styled Inspectors or Assistant Superintendents.

Generally there is a head Post Office at the head-quarters of each revenue district and other post offices in the same district are usually subordinate to the head office for purposes of accounts. The Postmasters of the Calcutta, Bombay, and Madras General Post Offices and of the other largest offices are directly under the Postmaster-General and the least of them exercises the same powers as a

Superintendent of Post Offices in respect of inspections, appointments, leave and punishments. The Presidency Postmasters, indeed, have one or more Superintendents subordinate to them. When the duties of the Postmaster of a head office become so onerous that he is unable to perform them fully himself, a Deputy Postmaster is appointed to relieve him of some of them, and if still further relief is required, one or more Assistant Postmasters are employed. The more important of the offices subordinate to the head office are designated sub-offices and are usually established only in towns of some importance. Sub-offices transact all classes of postal business with the public, submit accounts to the head offices to which they are subordinate incorporating therein the accounts of their branch offices, and frequently have direct dealings with Government local sub-treasuries. The officer in charge of such an office works it either single handed or with the assistance of one or more clerks according to the amount of business.

Branch offices are small offices with limited functions ordinarily intended for villages, and are placed in charge either of departmental officers on small pay or of extraneous agents, such as school-masters, shopkeepers, landholders or cultivators who perform their postal duties in return for a small remuneration.

The audit work of the Post Office is entrusted to the Accountant-General, Post Offices and Telegraphs, who is an officer of the Finance Department of the Government of India and is not subordinate to the Director-General. The Accountant-General is assisted by Deputy and Assistant Accountants-General, all but one of whom, with the necessary staff of clerks, perform at separate headquarters the actual audit work of a certain number of postal circles.

In accordance with an arrangement which has been in force since 1883, a large number of sub-post offices and a few head offices perform telegraph work in addition to their postal work and are known by the name of combined offices. The policy is to increase telegraph facilities everywhere and especially in towns by opening a number of cheap telegraph offices working under the control of the Post Office. The telegraph expenditure on account of these combined offices is borne by the Telegraph Department to which the whole of their telegraph revenue is also credited.

**Inland Tariff** is as follows:—

Letters.	When the postage is prepaid.	When the postage is wholly unpaid.	When the postage is insufficiently prepaid.
Not exceeding 1 tola .. .. .	Anna.	Double the prepaid rate (chargeable on delivery.)	Double the deficiency (chargeable on delivery.)
Exceeding 1 tola but not exceeding 10 tolas .. .. .	1		
Every additional 10 tolas or part of that weight .. .. .	1		
<i>Book and pattern packets.</i>			
Every 10 tolas or part of that weight..	1		

**Postcards.**  
Single .. .. ½ anna.  
Reply .. .. ½ ..  
(The postage on cards of private manufacture must be prepaid in full).

**Parcels (prepayment compulsory).**  
Rs. a.  
Every 40 tolas or part of that weight up to 410 tolas .. .. 0 2  
Registration compulsory. { Exceeding 440 tolas but not exceeding 480 tolas .. .. 3 0  
{ Every additional 40 tolas or part of that weight up to 800 tolas .. .. 0 4

**Registration fee.**  
For each letter, postcard, book or pattern packet, or parcel to be registered 0 2

**Ordinary Money Order fees.**  
On any sum not exceeding Rs. 5 .. .. 0 1  
On any sum exceeding Rs. 5 but not exceeding Rs. 10 .. .. 0 2  
On any sum exceeding Rs. 10 but not exceeding Rs. 15 .. .. 0 3  
On any sum exceeding Rs. 15 but not exceeding Rs. 25 .. .. 0 4  
On any sum exceeding Rs. 25 up to Rs. 600 .. .. 0 4

for each complete sum of Rs. 25, and 4 annas for the remainder; provided that, if the remainder does not exceed Rs. 5, the charge for it shall be only 1 anna; if it does not exceed Rs. 10, the charge for it shall be only 2 annas and if it does not exceed Rs. 15, the charge for it shall be only 3 annas.

**Telegraphic money order fees.**—The same as the fees for ordinary money orders plus a telegraph charge calculated at the rates for inland telegrams for the actual number of words used in the telegram. The remittance, according as the telegram is to be sent as an "Express" or as an "Ordinary" message.

**Value-payable fees.**—These are calculated on the amount specified for remittance to the sender and are the same as the fees for ordinary money orders.

**Insurance fees.**—For every Rs. 50 of insured value 1 anna.

**Acknowledgment fee.**—For each registered article 1 anna.

Ceylon and Portuguese India are regarded as "Inland" for the purpose of the tariff given above, except with regards to insurance fees.

**The Foreign Tariff.**—(which as noted above is not applicable to Ceylon and Portuguese India, except as regards insurance fees) is as follows:—

**Letters.**  
To the United Kingdom, other British Possessions and Egypt, including the Sudan, } One anna for each ounce or part of that weight.

To other countries, colonies or places, { 2½ annas for the first ounce and 1½ annas for every additional ounce or part of that weight.

Postcards Single .. .. 1 anna.  
" Reply .. .. 2 annas.

**Printed Papers.**—½ anna for every 2 ounces or part of that weight.

**Business Papers.**—1 anna for every 2 ounces or part of that weight, subject to a minimum charge of 2½ annas for each packet.

**Samples.**—1 anna for every 2 ounces or part of that weight, subject to a minimum charge of 1 anna for each packet.

(The rates shown above are those chargeable when the postage is prepaid).

**Parcels.** (Prepayment compulsory). The rates vary with the countries to which they are addressed. The rates to the United Kingdom are—

	Via Gibraltar.	Overland.
	Rs. a. p.	Rs. a. p.
Not over 3 lbs. .. ..	0 12 0	1 8 0
" " 7 " .. ..	1 8 0	2 4 0
" " 11 " .. ..	2 4 0	3 0 0

**Registration fee.**—2 annas for each letter, postcard, or packet.

**Money Orders.**—To countries on which money orders have to be drawn in rupee currency, the rates of Commission are the same as in the case of inland money orders.

To countries on which money orders have to be drawn in sterling, the rates are as follows:—

	Annas.
Not exceeding £1 .. ..	3
Exceeding £1 but not exceeding £2 .. ..	5
" £2 " " " £3 .. ..	8
" £3 " " " £4 .. ..	10
" £4 " " " £5 .. ..	12
" £5 .. ..	12

for each complete sum of £5 and 12 annas for the remainder, provided that if the remainder does not exceed £1, the charge for it shall be 3 annas; if it does not exceed £2, the charge for it shall be 5 annas; if it does not exceed £3, the charge for it shall be 8 annas; and if it does not exceed £4, the charge for it shall be 10 annas.

**Insurance fees.**—

To countries other than those named below .. 3 annas for every £5.

To Ceylon and Portuguese India .. .. 2 annas per every Rs. 100.

To Mauritius, the Seychells, Zanzibar, and the British East Africa, Uganda, and Somaliland Protectorates .. .. 4 annas per every Rs. 100.

**Acknowledgment fee.**—2 annas for each registered article.

**Growth of the Post Office.**—At the end of 1892-93 the total number of Post Office was 10,139 and the total length of mail lines 113,755 miles. For the 31st March 1913 the corresponding figures were 18,789 and 154,493. During the year 1892-93 the total number of letters, postcards, newspapers and packets given out for delivery was about 349 millions, while for the year 1912-13 the total number of unregistered articles of the same classes given out for delivery plus the issue number of registered letters and packets posted amounted to over 1,003 millions. The number of parcel mail articles given out for delivery and the former year was about 3 millions, as compared with over 11½ millions of such articles posted during the latter year. The total number of articles of all the above named classes exchanged with the outer world rose from about 18 millions in 1893-94 to nearly 67½ millions in 1911-12, (complete statistics are not available for 1892-93 or 1912-13). The total number and value of money orders issued increased from 8,325,457 and Rs. 17,57,24,055 in 1892-93 to 29,018,584 and Rs. 52,28,14,903 respectively, in 1912-13. During the former year the number of articles insured for transmission by post was 263,811 with an aggregate issued value of

Rs. 7,30,60,710; and the corresponding figures for 1910-11 were 1,169,428 and Rs. 26,88,78,925 as the result, however, mainly of the introduction of the rule under which inland articles containing currency notes or portions thereof must be insured, the figures for 1912-13 stand at 2,706,436 and Rs. 67,14,36,618, respectively. The number of accounts open on the books of the Post Office Savings Bank grew from 520,967 on the 31st March 1893 to 1,566,860 at the end of 1912-13, with an increase from Rs. 7,81,87,727 to Rs. 20,61,14,503 in the total amount standing at the credit of depositors. The total staff of the department on the 31st March 1913 numbered 92,870. The net financial result of the working of the Post Office for the year 1912-13 was a surplus of Rs. 23,02,918.

This account of the activities of the Post Office would not be complete if it were not mentioned that on the 31st March 1913 there were 23,288 active Postal Life Insurance Policies with an aggregate assurance of Rs. 3,21,26,539 and that during the year 1912-13 it disbursed a sum of Rs. 28,77,665 to Native Military Pensioners; collected, at its own expense, a sum of Rs. 11,11,267 on account of customs duty on parcels and letters from abroad; and sold 10,694 lbs. of quinine to the public.

## TELEGRAPH DEPARTMENT.

The Telegraph Department is also controlled by an officer designated Director-General who works in subordination to the Government of India in the Department of Commerce and Industry. The superior staff of the direction, in addition to the Director-General himself, consists of a Director of Traffic and a Director of Construction (both of whom are officers of the same rank as the Directors of Telegraph Circles), a Personal Assistant and an Assistant Director of Construction (both of whom are taken from the grade of Assistant Superintendents), and an Assistant Director of Traffic who is selected from the staff of Deputy Superintendents. Since the 1st April 1912 the control of both departments has been vested, as an experimental measure, in a single officer bearing the designation Director-General of Posts and Telegraphs.

For telegraph purposes, the Indian Empire is divided into eight circles coterminous with the eight postal circles, each circle being in charge of a Director of Telegraphs. The Directors are responsible to the Director-General for the whole of the telegraph arrangements, both traffic and engineering, in their respective circles, but are assisted in purely technical matters by Electrical Engineers working under the control of the Electrical Engineer-in-Chief who is directly subordinate to the Director-General. There are two other officers, *viz.*, the Superintendent of Stores and the Superintendent of the Workshops, who are directly subordinate to the Director-General.

Since the 1st July 1912 the postal and telegraph services in the Bombay and central circles have been amalgamated as an experimental measure. The fundamental principles of this experimental scheme, which follows closely the systems in force in the United Kingdom and several other European countries, are that the traffic and engineering work of the

Telegraph Department are separated and the telegraph traffic work of each circle transferred to the Postmaster-General who is assisted by a Traffic Manager drawn from the ranks of Superintendents of Telegraphs and a suitable number of Assistant Traffic Manager drawn from the ranks of Assistant or Deputy Superintendents of Telegraphs, while the engineering work of both circles is entrusted to a single officer styled Superintending Engineer, Telegraphs.

The eight telegraph circles are divided into divisions each in charge of a Superintendent, and each Superintendent is assisted by a certain number of Assistant Superintendents and Deputy Superintendents.

The Central Telegraph Officers at Calcutta, Bombay and Madras are in charge of Superintendents of Telegraphs, while the rest of the offices are in charge of Deputy Superintendents, Telegraph Masters or Telegraphists according to their importance.

The audit work of the Telegraph Department is, like that of the Post Office, entrusted to the Accountant-General, Post Office and Telegraphs, assisted by a staff of Deputy and Assistant Accountants-General.

**Inland Tariff.**—The tariff for inland telegrams is as follows:—

<i>Private and State.</i>		Ordinary.	Address charged for
	Ex-press.		
	Rs. a.	Rs. a.	
Minimum charge	.. 1 0	0 6	}
Each additional word over 12	.. 0 2	0 ½	
<i>Additional charges.</i>			
Minimum for reply-paid telegram		6 annas.	
Acknowledgment of receipt		6 "	
Multiple telegrams, each 100 words or less		4 "	

Collation .. • • • • One quarter of charge for telegrams. Rs.

For acceptance of an Express telegram during the hours when an office is closed. { If both the offices of origin and destination are closed .. 2 If only one of the offices is closed .. 1

Signalling by flag or semaphore to or from ship, per telegram .. .. .8 annas.

Boat hire .. .. . Amount actually necessary.

Copies of telegrams, each 100 words or less .. .. .4 annas. Press.

			Ex-press.	Ordinary.	
			Rs. a.	Rs. a.	
Minimum charge	.. 1 0	0 8			} Address free
Each additional 6 words over 48	.. 0 2	0 1			
(Ceylon is not regarded as "Inland" but Portuguese India is.)					

The charges for *foreign* telegrams vary with the countries to which they are addressed. The rates per word for private and State telegrams to all countries in Europe except Russia and Turkey are as follow:—

			Private.	State.
			Rs. a.	Rs. a.
Via Turkey .. .. .	.. 1 6	....		
„ Indo .. .. .	.. 1 8	0 14		
„ Eastern .. .. .	.. 1 8	0 12		

At the end of 1892-93 there were 41,030 miles of line and 126,526 miles of wire and cable, as compared with 78,862 and 311,031 miles, respectively, on the 31st March 1913. At the end

of each year the number of departmental telegraph offices was 255, while the number of telegraph offices worked by the Post Office rose from 845 to 2,860. The increase in the number of paid telegrams dealt with is shown by the following figures:—

		1892-93.	1912-13.
Inland ..	Private ..	2,811,679	12,525,782
	State ..	604,124	1,130,721
	Press ..	25,834	186,419
Foreign ..	Private ..	530,349	1,571,722
	State ..	6,164	13,144
	Press ..	3,261	21,283
Total ..		3,981,411	15,449,071

The above figures are inclusive of the traffic of telegraph offices worked by the Post Office. The numbers included in the totals are—

1892-93 ..	1,154,585
1912-13 ..	8,415,817

The total number of wireless telegraph stations open for traffic at the end of 1912-13 was fifteen, *viz.*, Port Blair, Bassein, Diamond Island, Table Island, Victoria Point, Mergui, Bombay, Landheads, Calcutta, Karachi, Delhi, Simla, Allahabad, Lahore and Nagpur; and the total number of messages of all kinds disposed by the ten coast stations during the year was 68,729.

On the 31st December 1912 the number of telephone exchanges established by the department was 183, the total number of connections being 4,313; and there were also 663 non-exchange circuits with 1,248 offices. The number of telephone exchanges established by Telephone Companies was 13 with 7,899 connections. The outturn from the workshop during 1912-13 represented a total value of Rs. 10,25,000. At the end of the year the total staff of the department numbered 11,401. The total capital expenditure of the Department up to the close of 1912-13 amounted to Rs. 11,79,73,619. The net revenue for the year was Rs. 24,58,314, representing 2.084 per cent. of the total capital expenditure.



## The Trade of India.

The trade conditions of India are necessarily determined by the economic condition of the country. The dominant industry in India is agriculture. Although a few great industries, like the jute industry of Bengal and the cotton industry of Bombay, have been built up, sixty-five per cent. of the people still derive their means of livelihood from the soil. Consequently the principal articles of export are in the form of raw produce like cotton and jute, rice and wheat and oilseeds. On the other hand, the articles of import are manufactured. From this premise follows another conclusion. The trade history of the year is governed by the character of the rains; the nature of the harvest determines both the power of the people to sell produce and to import manufactured goods. One other factor needs to be noted, India is a debtor country. She has to discharge, for the most part in London, the interest on the debt contracted for railway, irrigation and other purposes. She has also to pay in London what are called the "home charges," the payments for pensions, salaries of officers on leave, and similar services. These amount in round figures to about £ 7 millions a year. The total of the payments to be made in London annually on both heads and for capital works on railways and other stores is £ 18 millions. Consequently, there must be a balance of trade in favour of India. This, when it exceeds the Home charges, which is almost invariably the case, is liquidated by the importation of treasure—gold and silver, gold in the form of sovereigns and bars, silver invariably as bullion.

### Summary of Trade.

The last year for which complete returns are available is that which ended on March 31st 1913. This reflected the monsoon of 1912, which was deficient, though the rains were well-distributed; and the winter rains of 1912-13, which were patchy, on the whole the year was meteorologically a good one. The prices of food grains were high, the index figure being 125; with 100 as the average for the five years ended 1907. The grand total of imports and exports

was Rs. 465·16 crores, as against Rs. 430·2 in 1911-12, the increase being one of Rs. 34·96 crores, or 8·1 per cent. The total includes some Rs. 58·24 crores of gold and silver imported and exported, and Rs. 4·7 crores of foreign merchandise re-exported. It excludes Rs. 5·62 crores of stores imported by Government, of which Rs. 2·54 crores were for material for State railways, and it also excludes about Rs. 14·22 crores of treasure on Government account—silver bought for the coinage of rupees.

Exports represent 51·4 per cent. of this total, and amounted to Rs. 252·95 crores, as against Rs. 238·21 crores in the previous year. The increase here was Rs. 14·74 crores; this represented 42·2 per cent. of the total increase in trade and 6·2 per cent. on the export figures of 1911-12.

Imports had a total value of Rs. 212·21 crores, as against Rs. 192 crores in 1911-12, the advance being Rs. 20·21 crores or 10·5 per cent.

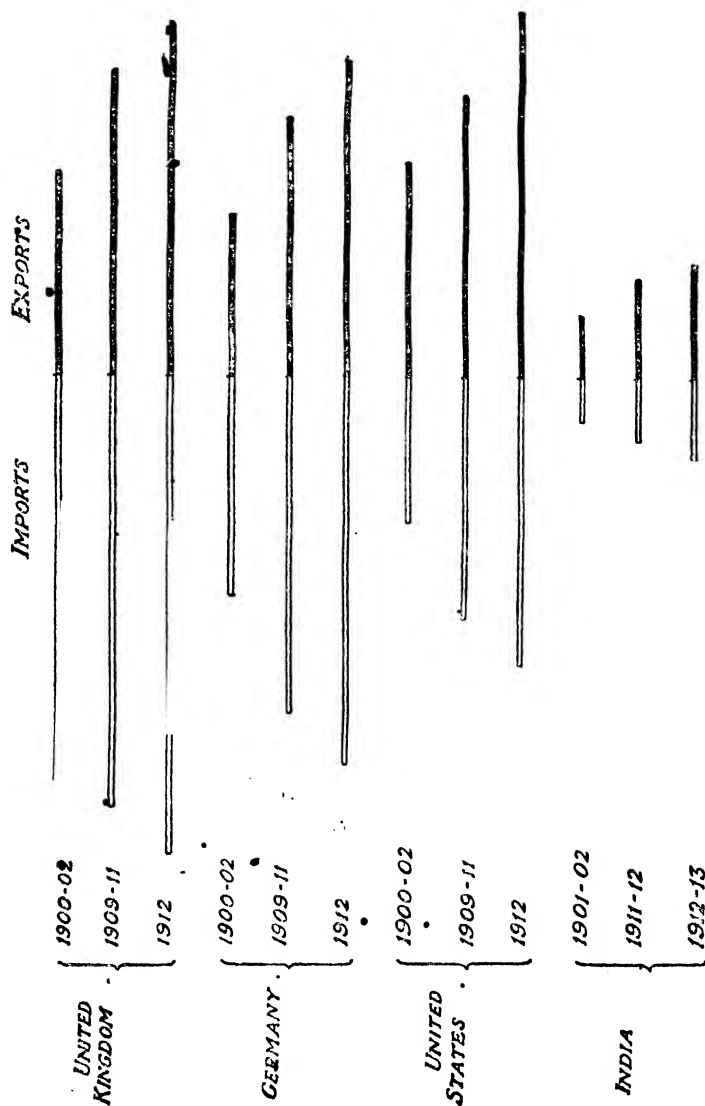
### India and the World's Trade.

The diagram on the opposite page shows the magnitude and growth of the trade of the principal countries of the world, and the relation of the trade of India thereto. The first and second lines in each group show the averages for the triennial ending with the year stated; the third line shows the actuals for the single year under review.

The bulk of the trade of India is done with Europe, which claims 64·6 per cent. of the total. Asia comes second with 23·3 per cent. and other countries a long way down the list. Of the trade with Europe the United Kingdom takes the lion's share. The value of this trade is Rs. 163·2 crores and there was an increase of 11·4 per cent. in the year. The trade with British possessions other than the United Kingdom is also considerable, amounting to 12·3 of the total. The aggregate trade of India with the British Empire thus shows the imposing total of Rs. 213·43 crores, or 52·5 per cent. The variations in these proportions are illustrated below.

These proportions are statistically shown in the following table :—

Unit 1,000.	1911-12.		1912-13.	
	Rs.	Per cent.	Rs.	Per cent.
United Kingdom .. .. .	1,16,53,50	40	1,63,20,61	40·1
Germany .. .. .	31,61,10	8·6	34,72,33	8·5
United States .. .. .	20,95,65	5·7	21,08,28	5·9
China .. .. .	20,80,95	5·7	23,52,81	5·8
Japan .. .. .	20,22,15	5·5	22,60,66	5·6
France .. .. .	15,90,45	4·3	17,84,90	4·4
Belgium .. .. .	15,67,05	4·3	16,16,60	4
Java .. .. .	13,74,75	3·7	12,82,03	3·1
Straits Settlements .. .. .	11,76,40	3·2	12,27,85	3
Austria-Hungary .. .. .	10,27,05	2·8	10,64,12	2·6
Ceylon .. .. .	9,23,40	2·5	9,91,19	2·4
Italy .. .. .	7,59,30	2·1	8,48,56	2·1
Holland .. .. .	4,52,70	1·2	4,64,62	1·1
Mauritius .. .. .	3,37,48	·9	4,62,55	1·1
South America .. .. .	2,56,95	·7	4,60,99	1·1
Egypt .. .. .	1,99,05	·5	3,95,92	1
Australia .. .. .	4,61,55	1·3	3,89,14	1
Turkey, Asiatic .. .. .	2,96,10	·8	2,83,29	·7
Russia .. .. .	1,83,45	·5	2,54,64	·6
Aden .. .. .	1,76,24	·5	2,00,89	·5
Spain .. .. .	1,95,61	·5	1,92,02	·5
Arabia .. .. .	1,90,57	·5	1,88,24	·5
Persia .. .. .	1,84,96	·5	1,82,81	·5



## Principal Imports.

The principal imports are **cotton goods**, Rs. 60·82 crores, or 38 per cent. of the total. These embrace 50·04 million pounds of yarn and 3,022 million yards of piece-goods, over 90 per cent. of the trade being British. **Sugar** imports amounted to 773,576 tons, valued at Rs. 14·3 crores. Java is the principal source of supply with 9 million cwt., Mauritius second with 3 million cwt., the imports of beet, chiefly from Austria, being one million cwt. **Iron and steel** imports were 706,000 tons, valued at Rs. 11·47 crores. The share of the United Kingdom was 58·7 per cent., the other exporting countries being Germany, Belgium and the United States. India has now entered the field of steel-producing countries with new mills at Sakchi. **Railway plant and rolling stock** was valued at Rs. 640·29 lakhs. The United Kingdom has a virtual monopoly of this trade. **Machinery and millwork** is largely for the textile trades; its value with belting was Rs. 585·75 lakhs. **Mineral oil** Rs. 375·3 lakhs. The principal imports come from the United States, Russia and Borneo. The indigenous production has largely increased of late, the Burma oil fields supplying some 52 per cent. of the consumption. **Hardware and cutlery** Rs. 384·6 lakhs. A little more than one-half of this trade is with the United Kingdom, Germany, Austria, the United

States and Belgium sharing the balance. **Woollen manufactures** 305·8 lakhs. India is developing a strong woollen industry supplying her supplies of raw material by imports, and owing to high prices the imports of woollen piece-goods fell off by Rs. 36·6 lakhs. **Silk manufactures** 305·3 lakhs; **provisions and oilman's stores** Rs. 234·9 lakhs; **apparel** Rs. 227·4 lakhs; **haberdashery and millinery** Rs. 137·1 lakhs; **copper** Rs. 237 lakhs; **raw cotton** Rs. 222·3 lakhs; **carriages and carts**, including **bicycles and motor cars** Rs. 189·9 lakhs; **glass and glass-ware** Rs. 175·2 lakhs; **raw silk** Rs. 171·4 lakhs; **spices** Rs. 163·1 lakhs; **instruments and apparatus** Rs. 147·8 lakhs; **paper and pasteboard** Rs. 144·5 lakhs; **stationery** (excluding paper) Rs. 63 lakhs; **coal** Rs. 1,16·7 lakhs; **aniline and alizarine dyes** Rs. 1,13·9 lakhs; **fruits and vegetables** Rs. 1,09·3 lakhs; **precious stones and pearls** Rs. 1,08·2 lakhs; **drugs and medicines** Rs. 1,05·5 lakhs; **matches** Rs. 98·3 lakhs; **chemicals** Rs. 93·2 lakhs; **spirits** (excluding spirit present in drugs and methylated and perfumed spirits) Rs. 85·6 lakhs; **salt** Rs. 84·9 lakhs; **paints and colours** and **painters' materials** Rs. 70·4 lakhs; **tobacco** Rs. 69·3 lakhs; **beer** Rs. 67·7 lakhs; **timber** Rs. 57·7 lakhs; **horses** Rs. 20·9 lakhs.

## Distribution of Import Trade.

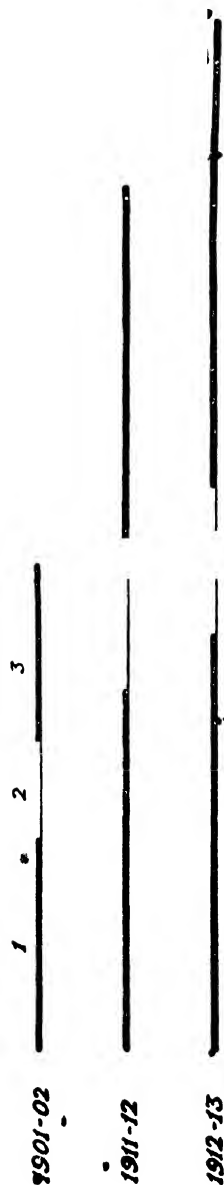
The statement below shows the value of imports from each principal country as well as the proportion in which each has contributed to the total:—

Unit 1,000.	1911-12.		1912-13.		Difference Increase + or decrease—
	Rs.	Per cent.	Rs.	Per cent.	
United Kingdom .. ..	86,45,29	62·4	1,01,44,11	6·3	+ 14,98,82
Germany .. ..	8,95,33	6·5	10,30,39	6·4	+ 1,35,06
Java .. ..	9,17,11	6·8	9,56,90	5·9	+ 9,79
United States .. ..	5,29,09	3·8	5,20,31	3·2	+ 8,78
Japan .. ..	3,47,75	2·5	4,06,57	2·5	+ 58,82
Austria-Hungary .. ..	2,65,61	1·9	3,52,75	2·2	+ 87,14
Mauritius .. ..	1,91,52	1·4	3,23,87	2·0	+ 1,32,35
Straits Settlements .. ..	2,97,79	2·1	3,08,55	1·9	+ 10,76
Belgium .. ..	2,31,35	1·7	3,04,15	1·9	+ 72,80
China .. ..	2,46,14	1·8	3,01,68	1·9	+ 55,54
France .. ..	2,14,08	1·5	2,17,90	1·3	+ 3,82

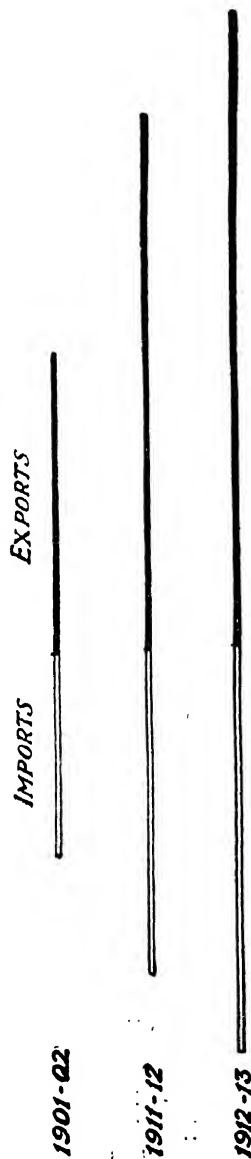
## The Export Trade.

The principal articles in the export trade are enumerated below with their values:—

Unit 1,000.	Average of previous three years.		1914-12.	1912-13.
	Rs.	Rs.	Rs.	Rs.
Rice (including rice-flour) .. ..	23,51,07	29,05,18	32,55,79	
Cotton, raw .. ..	32,33,78	29,52,54	28,11,12	
“ yarn and cloth .. ..	10,90,22	9,77,89	12,20,04	
Jute, raw .. ..	17,71,16	22,55,66	27,05,07	
“ manufactures .. ..	16,65,92	16,00,66	22,87,11	
Seeds .. ..	24,48,78	28,07,98	22,75,06	
Wheat and wheat-flour .. ..	13,67,91	11,14,47	18,77,01	
Hides and skins .. ..	13,51,44	13,92,85	16,37,07	
Tea .. ..	12,35,67	12,94,64	13,29,40	
Opium .. ..	11,72,22	13,08,91	11,22,16	
Unspecified food grains .. ..	4,01,43	8,26,30	8,97,32	
Wool, raw .. ..	2,76,01	2,58,63	2,63,47	
Lac .. ..	2,30,95	2,01,40	2,11,33	
Coffee .. ..	1,25,81	1,34,62	1,56,52	
Wood and timber .. ..	91,17	95,38	1,21,44	
Spices .. ..	81,57	92,91	93,28	
Oils .. ..	91,72	1,08,45	85,79	
Myrabolams .. ..	59,93	50,03	62,14	
Provisions and oilman's stores .. ..	41,90	45,19	48,01	
Silk, raw .. ..	49,05	45,84	41,74	
Indigo .. ..	35,43	37,58	24,01	



This diagram illustrates the proportion in which the trade of India is distributed. It shows Total Trade; participation (1) by the United Kingdom, (2) by other British Possessions, and (3) by Foreign countries in triennia ending 1901-02 and 1911-12, and in the single year 1912-13.



Total Indian Imports and Exports of merchandise in triennia ending 1901-02 and 1911-12, and in the single year 1912-13.

## The Chief Exports.

**Rice** formed 54 per cent. of the total food grains exported from India, and something like 30 per cent. of the cultivated area of British India is under this crop. The annual outturn is estimated 28½ million tons, of which 8·1 per cent. is exported, chiefly from Burma. The Indian **cotton** crop was 15,696,000 cwt., of which 7,319 thousand cwt., were exported, 6,361 thousand cwt., used in the mills, and 1,607 thousand cwt., consumed outside the mills. Japan is the chief foreign buyer. The exports of Indian **yarn** and **cloth** bear a small proportion to the production. The exports of yarn are 203 million lbs., as compared with 514 million retained for home consumption; the exports of piece-goods 8½ million yards, as compared with a production of 28½ million yards. The principal market for Indian yarn is China. The **jute** year was the most prosperous on record. India is virtually the sole producer, and raised 1,700 thousand tons, of which the mill consumption was 791 thousand tons and the exportable surplus 909 thousand tons; the actual exports were 876 thousand tons. The principal **seeds** exported are flaxseed, rape, cotton, sesamum, groundnuts and castor. This trade suffered a marked reaction owing to the large Argentine crop, the appearance of Canada as a seller of flax seed, and the large exports of cheap cotton seed oil from the United States. The year was favourable to **wheat**, and the export was 1,660 thousand tons, as compared with an average of 1,226. The United Kingdom takes 71·4 per cent. of the exports. The **tea** season surpassed all others in several respects. The crop is

believed to have shown an increase of 27½ million lbs. The exports were 278½ million lbs., of which 71 per cent. went to the United Kingdom and 11·9 per cent. to Russia. The **Indigo** trade is fast approaching vanishing point under the competition of the synthetic product.

## Customs Revenue.

The gross revenue from imports increased from Rs. 772·86 to Rs. 861·82 lakhs. The net revenue was Rs. 818·07 lakhs.

## Gold and Silver.

The total imports of treasure on private account fell from Rs. 53·42 to Rs. 51·2 crores. The imports of gold decreased from Rs. 41·49 crores to Rs. 41·29 crores, whilst those of silver decreased from Rs. 11·93 crores to Rs. 9·91 crores.

## Balance of Trade.

The excess of exports over imports excluding Government transactions for the past three years gives an average of 44·97 crores of rupees.

## Trans-Frontier Trade.

The bulk of India's foreign trade is seaborne. The value of the trade across the frontiers is commonly equal to 4·6 per cent. of that carried by sea. The total trans-frontier trade for the year 1912-13 was valued at Rs. 1020·77 lakhs, or fourteen per cent. greater than that of the previous year. The trade, which has great possibilities, is terribly hampered by lack of communications, for it has to be carried on coolies, mules or camels, even roads for wheeled transport being non-existent.

Excluding treasure, we give below the figures relating to merchandise only and their distribution according to frontiers and principal countries:—

Unit 1,000	IMPORTS.		EXPORTS.		TOTAL.	
	Rs.	Increase + or decrease +	Rs.	Increase + or decrease +	Rs.	Increase + or decrease +
		per cent.		per cent.		per cent.
North-West Frontier— .. ..						
Persia .. .. .	4,25	+ 38	19,41	+ 19	23,69	+ 22
Afghanistan— .. .. .						
Southern and Western .. ..	78,40	+ 22	79,85	32	1,58,25	+ 27
Northern and Eastern .. ..	48,75	+ 57	1,70,17	+ 157	2,18,92	+ 125
Dir, Swat and Bajaur .. ..	86,10	+ 21	91,69	+ 25	1,77,79	+ 23
Ladakh .. .. .	5,58	+ 100	2,56	+ 112	6,14	+ 105
North and North-East Frontier— .. ..						
Nepal .. .. .	4,53,56	+ 4	2,16,58	— 2	6,70,14	+ 2
Sikkim and Bhutan .. ..	29,07	+ 57	24,58	— 54	54,25	— 25
Tibet .. .. .	24,13	— 5	13,06	— 10	37,99	— 7
Eastern Frontier— .. .. .						
Western China .. .. .	22,36	+ 23	63,32	+ 76	85,59	+ 85
North Shan States .. .. .	1,18,76	+ 12	1,25,66	+ 24	2,44,42	+ 18
South Shan States .. .. .	72,00	+ 3	77,39	+ 1	1,49,39	+ 2
North Siam .. .. .	25,05	+ 16	16,91	— 13	41,96	— 2
South Siam .. .. .	9,32	+ 4	3,24	— 31	12,56	+ 12
Karennee .. .. .	25,68	+ 20	4,70	+ 8	30,38	+ 18

## Banking in India.

Of the three Presidency Banks the Bank of Bengal which commenced business in the year 1806 is by far the oldest. It was followed by the Bank of Bombay in 1840 and by the Bank of Madras in 1843, but the former was wound up in the year 1867 and the present Bank dates from the year 1868.

To commence with an ~~for~~ some considerable time thereafter Government had a very large interest in all three Banks, holding as they did a large proportion of the share capital and having the right to nominate a number of the Directors. It was decided however in 1876 that this connection should cease and Government holding of shares was accordingly realised in that year and the right to be represented on the Directorates was given up at the same time. Government are still entitled, however, to audit the Banks' accounts at any time if they deem this necessary, to call for any information touching the affairs of the Banks and the production of any documents relative thereto, and may also require the publication of such statements of assets and liabilities at such intervals and in such form and manner as may be thought fit. The Banks' Agreements with Government are usually arranged for a period of ten years at a time and now-a-days provide for the most part for the carrying on at the head offices and branches of the ordinary banking business of Government in India and for the management and conduct in the three Presidency towns of the Government loans. The management of the Government Savings Bank was at one time entrusted to the Bank, but this was handed over to the Post Office in the year 1896.

### Paper Currency.

The Banks had the right to issue currency notes until the year 1862; but in that year this privilege was withdrawn and to compensate the Banks for being deprived of this right, Government decided to deposit the whole of their balances at the Presidency towns with the Banks. This practice held good until the year 1876, when the Reserve Treasuries were formed; but since that year Government balances, which are all payable at call, have only been maintained at a figure sufficient to meet the demands of Government and sufficient also to compensate the Banks in part for the work of keeping the accounts. There is no definite undertaking on the part of Government to keep any balance with the Banks either at the head offices or branches; but there is a stipulation that in the event of the balance at the head office of each Bank falling below a certain stated figure, which varies in the case of each Bank, Government will pay interest on the deficit.

### Government Deposits.

The following statement shows the Government deposits with each Bank at various periods during the last 40 years or so.

*In Lakhs of rupees*

--	Bank of Bengal.	Bank of Bombay.	Bank of Madras.	Total.
30 June				
1875 ..	496	91	124	711
1876 ..	409	195	115	719
1881 ..	230	61	53	344
1886 ..	329	82	30	450
1891 ..	332	97	53	482
1896 ..	225	88	57	370
1901 ..	187	90	63	340
1906 ..	186	93	46	325
1911 ..	198	129	77	404
1912 ..	210	155	75	440
1913 ..	247	167	68	482

### General Banking Business.

This is regulated by the Presidency Banks Act, 1876, under which Act all three Banks are now working. The various descriptions of business which the Banks may transact are clearly laid down in Sec. 36 of the Act, and it is expressly provided in Sec. 37 that the Banks shall not transact any kind of banking business other than those sanctioned in Sec. 36. Briefly stated the main classes of business which the Banks may engage in are as follows:—

- (1) Investing of money in any securities of the Government of India or of the United Kingdom of Great Britain and Ireland, the stock or debentures of, or shares in Railways bearing a Government guarantee in respect of interest and the debentures and securities of any Municipal body or Port Trust in India or of the Bombay Improvement Trust and the altering, converting and transposing of such investments.
- (2) Advancing of money against any of the securities specified above or against bullion or other goods which or the documents of title to which are deposited with or assigned to the Bank as security.
- (3) Advancing of money against accepted bills of Exchange and promissory notes.
- (4) Drawing, discounting, buying and selling of bills of exchange and other negotiable securities payable in India or Ceylon.
- (5) Receiving deposits.
- (6) Receiving securities for safe custody and realisation of interest, &c., from constituents of the Bank.
- (7) Buying and selling of gold and silver, whether coined or uncoined.
- (8) Transacting pecuniary agency business on commission.

The principal restrictions placed on the business of the Banks are as follows:—

- (1) The drawing, discounting, buying and selling of bills of exchange and other negotiable securities is *confined* to bills and securities payable in India and Ceylon.
- (2) Borrowing of money is only permitted in India.
- (3) Loans or advances upon mortgage or in any other manner upon the security of any immovable property or the documents of bills relating thereto is expressly prohibited.
- (4) The amount which may be advanced to any individual or partnership by way of discount or on personal security is limited to an amount prescribed in the Bye-Laws of the Banks, such Bye-Laws having previously been approved by Government.
- (5) Loans or advances cannot be granted for a longer period than six months at a time.
- (6) Discounts cannot be made or advances on personal security be given, unless such discounts or advances carry with them the several responsibilities of at least two persons or firms unconnected with each other in general partnership.

Various representations have been made to Government by the Banks to have certain of these restrictions withdrawn, particularly those referred to under Nos. 1 and 2, which latter effectually prevent the Banks from doing

anything in the nature of exchange business\* and from having access to the London money market for borrowing purposes. The restrictions in question were imposed at a time when the Government deposits formed a very large proportion of the Banks' working capital and when also, owing to the instability of exchange, there was some danger of losses being incurred in engaging in that class of business. The Banks have contended however that as Government deposits now form a very small proportion of the total resources, and as exchange has definitely been fixed at 16 pence there is no further necessity for the restrictions; and have asked that they should now be withdrawn. It has further been argued that as the Presidency Banks are the ultimate resort of the money market in India, it is necessary, in the interests of trade, that the Banks should have some means open to them of increasing their resources in India in times of pressure and that the best means of giving them this power is to permit them to borrow in London. The Government of India were prepared to meet the Banks' wishes in the above connection to a great extent in the year 1903; but the Secretary of State did not approve of the Government proposals, and they were finally negatived in 1906.

#### Government Deposits.

The proportions which Government deposits have borne from time to time to the total working capital of the three Banks are shown below :—

*In Lakhs of Rupees.*

—	Capital.	Reserve.	Government deposits.	Other deposits.	Proportion of Government deposits to working capital.
31st December.					
1876 .. ..	350	42	395	456	31.7 per cent.
1881 .. ..	350	61	333	542	25.8 "
1886 .. ..	350	82	352	625	24.0 "
1891 .. ..	350	97	297	1112	13.7 "
1896 .. ..	350	158	299	1292	14.2 "
1901 .. ..	360	213	340	1163	14.3 "
1906 .. ..	360	279	307	2745	8.3 "
1907 .. ..	360	294	335	2811	8.8 "
1908 .. ..	360	309	325	2861	8.4 "
1909 .. ..	360	318	319	3265	7.4 "
1910 .. ..	360	331	423	3231	9.7 "
1911 .. ..	360	340	438	3419	9.6 "
1912 .. ..	375	361	426	3578	9.0 "

The Banks have also the management of the debt of a number of the Municipalities, Port Trusts and Improvement Trusts throughout India.

## Recent Progress.

The following statements shew the progress made by the three Banks within recent years:—

*In Lakhs of Rupees.*

## BANK OF BENGAL.

—	Capital.	Reserve.	Govt. deposits.	Other deposits.	Cash.	Investments.	Dividend for year.
31st December.							
1880 .. ..	200	25	202	502	483	153	8½ per cent.
1885 .. ..	200	41	148	383	312	116	9½ "
1890 .. ..	200	47	226	666	639	206	9½ "
1895 .. ..	200	68	184	677	422	132	10 "
1900 .. ..	200	103	155	582	243	136	11 "
1905 .. ..	200	140	167	1204	396	181	12 "
1906 .. ..	200	150	160	1505	528	149	12 "
1907 .. ..	200	157	187	1573	460	279	12 "
1908 .. ..	200	165	178	1575	507	349	13 "
1909 .. ..	200	170	168	1760	615	411	14 "
1910 .. ..	200	175	198	1609	514	368	14 "
1911 .. ..	200	180	270	1677	729	321	14 "
1912 .. ..	200	185	234	1711	665	310	14 "

## BANK OF BOMBAY.

1880 .. ..	100	22	39	265	159	79	7½ per cent.
1885 .. ..	100	25	53	276	218	33	7½ "
1890 .. ..	100	33	83	619	573	78	10 "
1895 .. ..	100	51	76	358	228	105	11 "
1900 .. ..	100	70	87	432	129	89	11 "
1905 .. ..	100	87	92	676	259	158	12 "
1906 .. ..	100	92	101	832	354	177	12 "
1907 .. ..	100	96	112	821	324	164	13 "
1908 .. ..	100	101	94	832	377	140	13 "
1909 .. ..	100	103	120	1035	415	163	13 "
1910 .. ..	100	105	152	1053	436	149	14 "
1911 .. ..	100	106	107	1104	463	208	14 "
1912 .. ..	100	106	117	1124	315	210	14 "

## BANK OF MADRAS.

1885 .. ..	50	8	31	107	76	19	7 per cent.
1890 .. ..	50	14	47	220	155	45	10½ "
1895 .. ..	50	16	45	278	144	45	10 "
1900 .. ..	60	22	35	260	82	67	8 "
1905 .. ..	60	30	41	344	140	71	10 "
1906 .. ..	60	32	54	355	151	81	10 "
1907 .. ..	60	36	35	416	162	84	10 "
1908 .. ..	60	40	52	447	153	84	11 "
1909 .. ..	60	44	49	500	141	79	12 "
1910 .. ..	60	48	72	567	184	85	12 "
1911 .. ..	60	52	59	625	165	104	12 "
1912 .. ..	75	70	75	743	196	113	12 "

\* Note.—(The Banks have power under Sec. 36 (f) to draw Bills of Exchange payable out of India under certain stated circumstances, but this permission is of comparatively little importance.)

## Branches.

## BANK OF BENGAL.

Calcutta—

Harrison Road, Clive Street & Park Street.

Agra, Akyab, Allahabad, Benares, Cawnpore, Chittagong, Dacca, Delhi, Hyderabad Decan, Jalpaiguri, Lahore, Lucknow, Moulmein, Nongpore, Naraingunge, Patna, Rangoon, Secunderabad, Simla.

## Pay Officers.

Chandpore, Serajgunge and Bombay (Agency).

## BANK OF BOMBAY.

Ahmedabad, Akola, Amraoti, Broach, Hyderabad (Sind), Indore, Jalgaon, Karachi, Poona, Rajkot, Sholapur, Sukkur & Surat.

## BANK OF MADRAS.

Alleppy, Bangalore, Bimlipatam, Calicut, Coconada, Cochin, Coimbatore, Colombo, Guntur, Mangalore, Masulipatam, Negapatam, Ootacamund, Tellicherry & Tuticorin.



## THE EXCHANGE BANKS.

The Banks carrying on Exchange business in India are merely branch agencies of Banks having their head offices in London, on the Continent, or in the Far East and the United States. Originally their business was confined almost exclusively to the financing of the external trade of India; but in recent years most of them, while continuing to finance this part of India's trade, have also taken an active part in the financing of the internal portion also at the places where their branches are situated.

At one time the Banks carried on their operations in India almost entirely with money borrowed elsewhere, principally in London—the home offices of the Banks attracting deposits for use in India by offering rates of interest much higher than the English Banks were able to quote. Within recent years however it has been discovered that it is possible to attract deposits in India on quite as favourable terms as can be done in London and a very large proportion of the financing done by the Exchange Banks is now carried through by means of money actually borrowed in India. No information is available as to how far each Bank has secured deposits in India but the following statement published by the Director-General of Statistics in India shows how rapidly such deposits have grown in the aggregate within recent years.

TOTAL DEPOSITS OF ALL EXCHANGE BANKS  
SECURED IN INDIA.

In Lakhs of Rupees.

1870	..	..	52
1875	..	..	106
1880	..	..	339
1885	..	..	475
1890	..	..	753
1895	..	..	1030
1900	..	..	1050
1901	..	..	1183
1902	..	..	1370
1903	..	..	1614
1904	..	..	1632
1905	..	..	1704
1906	..	..	1808
1907	..	..	1917
1908	..	..	1951
1909	..	..	2027
1910	..	..	2479
1911	..	..	2816

## Exchange Banks' Investments.

Turning now to the question of the investment of the Banks' resources, so far as it concerns India, this to a great extent consists of the purchase of bills drawn against imports and exports to and from India.

The financing of the import trade originates and is carried through however for the most part by Branches outside of India, the Indian Branches' share in the business consisting principally in collecting the amount of the bills at maturity and in furnishing their other branches with information as to the means and standing of the drawees of the bills, and it is as regards the export business that the Indian Branches are more immediately concerned. The Exchange Banks have practically a monopoly of the export finance in India and in view of the dimensions of the trade which has to be dealt with the Banks would under ordinary

circumstances require to utilise a very large proportion of their resources in carrying through the business. They are able however by a system of rediscount in London to limit the employment of their own resources to a comparatively small figure in relation to the business they actually put through. No definite information can be secured as to the extent to which rediscounting in London is carried on but the following figures appearing in the balance sheets dated 31st December 1912 of the undernoted Banks will give some idea of this.

## LIABILITY ON BILLS OF EXCHANGE REDISCOUNTED AND STILL CURRENT. £ a

Chartered Bank of India	..	..	6,244,000
Eastern Bank Ltd.	..	..	1,240,000
Hongkong and Shanghai Banking Corporation.	..	..	2,263,000
Mercantile Bank of India, Ltd.	..	..	2,452,000
National Bank of India, Ltd.	..	..	6,803,000
			26,002,000

The above figures do not of course relate to re-discounts of Indian bills alone, as the Banks operate in other parts of the world also, but it may safely be inferred that bills drawn in India form a very large proportion of the whole.

The bills against exports are largely drawn at three months' sight and may either be "clean" or be accompanied by the documents relating to the goods in respect of which they are drawn. Most of them are drawn on well known firms at home or against credits opened by Banks or financial houses in England and bearing as they do an Exchange Bank endorsement they are readily taken up by the discount houses and Banks in London. Any bill purchased in India are sent home by the first possible Mail so that presuming they are rediscounted as soon as they reach London the Exchange Banks are able to secure the return of their money in about 16 or 17 days instead of having to wait for three months which would be the case if they were unable to rediscount. It must not be assumed however that all bills are rediscounted as soon as they reach London as at times it suits the Banks to hold up the bills in anticipation of a fall in the London discount rate while on occasions also the Banks prefer to hold the bills on their own account as an investment until maturity.

The Banks place themselves in funds in India for the purpose of purchasing export bills in a variety of ways of which the following are the principal:—

- (1) Proceeds of Import bills as they mature.
- (2) Sale of drafts and telegraphic transfers payable in London and elsewhere out of India.
- (3) Purchase of Council Bills and Telegraphic Transfers payable in India from the Secretary of State.
- (4) Imports of bar gold and silver bullion.
- (5) Imports of sovereigns from London, Egypt or Australia.

The remaining business transacted by the Banks in India is of the usual nature and need not be given in detail.

The following is a statement of the position of the various Exchange Banks carrying on business in India as at 31st December 1912.

In Thousands of £.

	Capital.	Reserve.	Deposits.	Cash and Investment.
Chartered Bank of India .. ..	1200	1650	18040	5501
Comptoir National D. Escompte de Paris (1911).	8000	1483	47801	5282
Delhi & London Bank, Ltd. .. ..	337	12	1751	325
Eastern Bank, Ltd. .. ..	400	....	2155	578
Hongkong & Shanghai Bank .. ..	1500	3200	28814	6018
International and Banking Corporation	650	650	4218	2214
Mercantile Bank of India .. ..	562	415	5625	1208
National Bank of India .. ..	1000	950	13926	3551
Russo Asiatic Bank .. ..	4745	2500	35847	7884
Yokohama Specie Bank .. ..	3000	1821	16746	4910

## JOINT STOCK BANKS. \*

Previous to 1906 there were few Banks of this description operating in India, and such as were then in existence were of comparatively small importance and had their business confined to a very restricted area. The rapid development of this class of Bank, which has been so marked a feature in Banking within recent years, really had its origin in Bombay and set in with the establishment of the Bank of India and the Indian Specie Bank in 1906. Since that time there has been a perfect stream of new formations, and although many of the new Companies confine themselves to legitimate banking business, on the other hand a very large number engage in other businesses in addition, and can hardly be properly classed as Banks.

That a field exists for such Banks has been amply proved by the experience of the past few years; but it is not quite clear that the development of Banks of this description is proceeding on quite the right lines. So far the tendency has been for the new Banks to concentrate and to employ their funds almost exclusively in places where Banks are already established and where past experience has shown that banking has been profitable. It is true that in a few cases Branches have been opened at places where no Bank had previously existed but it is understood that in such places the Branches have been established principally

for the purpose of collecting deposits to be utilised at the Head Office of the Bank. There is no great harm in this practice so long as it does not lead to undue facilities being offered to the public in the way of securing accommodation, and so far no clear indication that this stage has been reached is apparent. It must be remembered however that India has enjoyed marked prosperity throughout the last few years, and the test will really come when a period of stagnation sets in. When this time comes, as come it must, the difficulty will be to employ money safely and profitably and there is the danger that at that time the Banks, rather than have their funds lying idle, may be tempted to advance against unsafe security and to lock up their money in a way that may prevent it from being readily available at times of pressure. No one questions the necessity of developing banking habits in India, and as the new Banks are undoubtedly of assistance in this connection, it is desirable that nothing should occur to give a set-back to the growing confidence on the part of the public.

The institutions which have so far met with the most success are those with their Head Offices in Bombay, and many of these Banks have been able to attract deposits to a very considerable extent during the short time they have been doing business.

The following shows the position of the better known Banks as it appears in the latest available Balance Sheets:—

In Lakhs of Rupees.

	Capital.	Reserve.	Deposits.	Cash and Investments.
Allahabad Bank, Limited .. ..	20	34	685	182
Alliance Bank of Simla, Limited .. ..	20	29	499	185
Bank of Baroda, Limited .. ..	10	1	92	27
Bank of India, Limited .. ..	50	5	271	52
Bank of Rangoon, Limited .. ..	16	3	29	9
Bank of Upper India, Limited .. ..	10	9	101	32
Bombay Merchants Bank, Limited .. ..	10	2	86	30
Central Bank of India, Limited .. ..	15	1	115	23
Credit Bank of India, Limited .. ..	10	..	51	15
Gorakhpur Bank, Limited .. ..	3	1	19	7
Indian Bank, Limited .. ..	10	..	27	8

\* The failure of some of these Swadeshi Banks is described in a special article and the Chronicle of the year.

In Lakhs of Rupees.—contd.

	Capital.	Reserve.	Deposits.	Cash and investment.
Indian Specie Bank, Limited .. ..	75	9	Not available	142
Karachi Bank, Limited .. ..	2	..	8	1
Kathiawad and Ahmedabad Banking Corporation.	7	..	23	1
Lahore Bank, Limited .. ..	1	..	29	4
National Financing and Commission Corporation, Limited.	13	..	27	10
Oudh Commercial Bank, Limited ..	5	4	26	5
People's Bank of India .. ..	12	2	127	29
Poona Bank, Limited .. ..	3	..	26	4
Punjab Banking Co., Limited .. ..	6	9	158	63
Punjab Co-Operative Bank .. ..	7	2	57	5
Punjab National Bank, Limited ..	9	8	147	34
Standard Bank, Limited .. ..	10	..	28	10

**Growth of Joint Stock Banks.**

The following figures appearing in the Report of the Director General of Statistics shows the growth of the Capital, Reserve and Deposits of the principal Joint Stock Banks registered in India :—

In Lakhs of rupees.				Capital.	Reserve.	Deposits.
Capital.	Reserve.	Deposits.				
1870 ..	9	1	13	1885 ..	18	5
1875 ..	14	2	27	1890 ..	33	17
1880 ..	18	3	63	1895 ..	63	31
				1900 ..	82	45
				1905 ..	84	77
				1906 ..	133	56
				1907 ..	229	63
				1908 ..	239	69
				1909 ..	266	87
				1910 ..	275	100
				1911 ..	285	126

**NATIVE PRIVATE BANKERS AND SHROFFS.**

Native private Bankers and Shroffs flourished in India long before Joint Stock Banks were ever thought of, and it seems likely that they will continue to thrive for some very considerable time to come. The use of the word "Shroff" is usually associated with a person who charges usurious rates of interest to impecunious people, but this is hardly fair to the people known as "shroffs" in banking circles, as there is no doubt that the latter are of very real service to the business community and of very great assistance to Banks in India. Under present conditions the Banks in India can never hope to be able to get into sufficiently close touch with the affairs of the vast trading community in India to enable them to grant accommodation to more than a few of these traders direct, and it is in his capacity as middleman that the shroff proves of such great service. In this capacity also he brings a very considerable volume of business within the scope of the Presidency Banks Act, and enables the Presidency Banks to give accommodation which, without his assistance, the Banks would not be permitted to give. The shroff's position as an intermediary between the trading community and the Banks usually arises in something after the following manner. A Shopkeeper in the bazaar, with limited means of his own, finds that, after using all his own money, he still requires say Rs. 25,000 to stock his shop suitably. He thereupon approaches the shroff, and the latter after very careful inquiries as to the shopkeeper's position grants the accommodation, if he is satisfied that the business is safe. The business, as a rule, is arranged through a hoondee broker, and in the case referred to

the latter may probably approach about ten shroffs and secure accommodation from them to the extent of Rs. 2,500 each. A hoondee usually drawn at a currency of about 2 months is almost invariably taken by the shroffs in respect of such advances.

A stage is reached however when the demands on the shroffs are greater than they are able to meet out of their own money, and it is at this point that the assistance of the Banks is called into requisition. The shroffs do this by taking a number of the bills they already hold to the Banks for discount under their endorsement and the Banks accept such bills freely to an extent determined in each case by the standing of the shroff and the strength of the drawers. The extent to which any one shroff may grant accommodation in the bazaar is therefore dependent on two factors, viz., (1) the limit which he himself may think it advisable to place on his transactions and (2) the extent to which the Banks are prepared to discount bills bearing his endorsement. The shroffs keep in very close touch with all the traders to whom they grant accommodation, and past experience has shown that the class of business above referred to is one of the safest the Banks can engage in.

The rates charged by the shroffs are usually based on the rates at which they in turn can discount the bills with the Banks and necessarily vary according to the standing of the borrower and with the season of the year. Generally speaking, however, a charge of two annas per cent. per mensem above the Bank's rate of discount, or  $1\frac{1}{2}\%$  is a fair average rate charged

in Bombay to a first class borrower. Rates in Calcutta and Madras are on a slightly higher scale due in a great measure to the fact that the competition among the shroffs for business is not so keen in these places as it is in Bombay.

The shroffs who engage in the class of business above described are principally Marwaries and Mullanis having their head Offices for the most part in Bikanir and Shikarpur respectively, the

business elsewhere than at the Head Offices being carried on by "Moonimis" who have very wide powers.

It is not known to what extent native bankers and shroffs receive deposits and engage in exchange business throughout India, but there is no doubt that this is done to a very considerable extent.

### THE BANK RATE.

Each Presidency Bank fixes its own Bank rate, and the current rate of each Bank determines to a great extent the rates for all important classes of business within the Bank's sphere of influence. The rates in the three Presidencies are not always uniform, but it seldom happens that a difference of more than 1% exists, more particularly as regards Bombay and Bengal, which seem to be in closer touch with each other than appears to be the case with Madras.

The rate fixed represents the rate charged by the Banks on demand loans against Government securities only and advances on other securities or discounts are granted as a rule at a slightly higher rate. Ordinarily such advances or discounts are granted at from one-half to one per cent. over the official rate; but this does not always apply and in the monsoon months, when the Bank rate is sometimes nominal, it often happens that such accommodation is granted at the official rate or even less.

The following statement shews the average Bank rate of each Bank since 1880 :—

Year.	Bank of Bombay.			Bank of Bengal.			Bank of Madras.		
	1st Half-year.	2nd Half-year.	Yearly average.	1st Half-year.	2nd Half-year.	Yearly average.	1st Half-year.	2nd Half-year.	Yearly average.
1880 ..	5.72	4.3	5.01	5.385	3.913	4.649			
1881 ..	5.40	5.08	5.69	4.862	5.717	5.289			
1882 ..	8.08	4.13	6.10	8.177	5.022	6.599			
1883 ..	7.00	6.2	6.6	6.994	6.560	6.777			
1884 ..	9.03	4.17	6.60	8.813	3.946	6.379			
1885 ..	5.90	4.00	4.95	6.757	4.005	5.381			
1886 ..	6.35	6.50	6.42	5.923	6.152	6.037			
1887 ..	7.78	5.73	5.75	7.475	3.804	5.639			
1888 ..	5.90	5.51	5.70	5.736	5.185	5.460			5.60
1889 ..	9.46	4.00	6.73	9.309	4.674	6.991			6.86
1890 ..	9.21	3.28	6.24	8.265	3.315	5.790			5.74
1891 ..	3.88	2.23	3.05	3.502	2.622	3.062			2.92
1892 ..	3.97	3.04	3.50	3.884	3.114	3.499			3.54
1893 ..	5.97	3.84	4.90	5.685	4.076	4.880			5.27
1894 ..	7.55	3.46	5.50	7.425	3.364	5.394			5.00
1895 ..	4.30	3.60	3.95	5.066	3.592	4.329			4.25
1896 ..	5.85	5.10	5.47	5.774	5.608	5.691			5.62
1897 ..	10.11	5.6	7.87	9.884	5.967	7.925			7.97
1898 ..	12.03	4.55	8.29	11.016	5.114	8.065			7.78
1899 ..	6.34	5.42	5.88	6.337	5.494	5.915			6.05
1900 ..	6.9	3.79	5.34	6.414	4.272	5.343			5.87
1901 ..	7.07	3.83	5.45	6.895	4.070	5.482			5.83
1902 ..	6.25	3.43	4.84	6.176	3.549	4.862	7.57	4.00	5.51
1903 ..	6.7	3.48	5.09	6.265	3.494	4.879	7.13	4.27	5.70
1904 ..	5.15	3.82	4.48	5.560	4.190	4.875	6.42	4.07	5.24
1905 ..	5.77	4.42	5.09	5.558	4.630	5.094	6.04	4.19	5.11
1906 ..	7.24	5.28	6.26	6.950	5.885	6.417	7.15	5.04	6.09
1907 ..	7.81	4.11	5.96	7.635	4.576	6.105	8.24	4.54	6.30
1908 ..	7.84	4.02	5.93	7.417	4.244	5.830	8.38	4.38	6.38
1909 ..	6.47	3.82	5.14	6.580	3.907	5.243	7.55	4.41	5.98
1910 ..	6.19	4.14	5.16	6.143	4.510	5.326	7.17	4.65	5.91
1911 ..	6.55	3.52	5.06	6.657	4.358	5.507	7.59	4.35	5.97
1912 ..	6.01	4.10	5.05	6.242	4.592	5.417	7.51	4.59	6.05
1913 ..	7.23						7.76		

Bank of Bombay.			Bank of Bengal.			Bank of Madras.					
Date.		Rate.	Date.		Rate.	Date.		Rate.			
1904			1905			1903					
February	..	11	7	February	..	23	7	January	..	14	6
"	..	25	6	March	..	9	8	"	..	20	7
March	..	10	5	"	..	30	7	February	..	6	8
May	..	19	4	April	..	6	6	May	..	1	7
1904			1905			June	..	29	6		
June	..	16	3	April	..	14	5	"	..	12	5
October	..	13	4	"	..	27	4	"	..	30	4
"	..	20	5	July	..	20	3	December	..	23	5
1905			August	..	17	4	1903				
February	..	2	6	September	..	29	5	January	..	12	6
"	..	16	7	November	..	30	6	February	..	3	7
March	..	9	8	December	..	14	7	February	..	10	8
"	..	30	7	1906				April	..	20	7
April	..	6	6	January	..	1	8	July	..	2	6
"	..	14	5	February	..	1	9	"	..	13	5
July	..	6	4	March	..	15	8	December	..	23	4
"	..	27	3	"	..	22	7	"	..	21	5
August	..	10	4	April	..	5	6	1904			
November	..	23	5	"	..	12	5	January	..	7	6
"	..	30	6	May	..	3	6	"	..	21	7
December	..	14	7	"	..	17	7	May	..	16	6
1906			"	..				"	..	30	5
January	..	4	8	June	..	24	6	July	..	5	4
February	..	1	9	"	..	7	5	December	..	22	5
March	..	15	8	"	..	28	4	1905			
"	..	22	7	July	..	19	3	January	..	23	6
"	..	29	6	August	..	9	4	February	..	27	7
April	..	26	7	"	..	23	5	March	..	13	8
May	..	24	6	September	..	13	6	April	..	3	7
June	..	21	5	"	..	20	7	"	..	14	6
July	..	12	4	October	..	11	6	May	..	8	5
"	..	9	3	November	..	15	7	"	..	29	6
August	..	9	4	"	..	29	8	June	..	15	5
September	..	12	5	December	..	6	9	July	..	10	4
November	..	15	6	1907				December	..	18	6
"	..	22	7	April	..	18	8	1906			
"	..	29	8	"	..	25	7	January	..	8	7
December	..	13	9	May	..	2	6	"	..	16	8
1907			"	..				"	..	4	7
March	..	7	8	July	..	4	4	April	..	28	6
May	..	2	7	"	..	25	3	May	..	21	5
"	..	9	6	September	..	12	4	June	..	21	5
June	..	6	7	"	..	26	5	July	..	12	4
"	..	20	6	November	..	7	6	1906			
"	..	27	5	1908				September	..	17	5
July	..	4	4	January	..	1	7	November	..	29	6
August	..	1	3	"	..	9	8	December	..	6	7
September	..	26	4	"	..	16	9	"	..	10	8
November	..	7	5	March	..	5	8	1907			
December	..	12	6	"	..	26	7	January	..	16	9
1908			May	..				April	..	29	8
January	..	3	7	June	..	25	5	"	..	6	7
"	..	9	8	July	..	2	4	May	..	24	6
February	..	6	9	"	..	16	3	June	..	24	6
								July	..	1	5

Bank of Bombay.			Bank of Bengal.			Bank of Madras.		
Date.		Rate.	Date.		Rate.	Date.		Rate.
		Per cent.			Per cent.			Per cent.
1908			1908			1907		
March ..	19	8	September ..	3	4	July ..	8	4
" ..	26	7	November ..	5	5	November ..	4	5
April ..	16	8	" ..	26	6	December ..	5	6
			1909			" ..	23	7
May ..	28	7	January ..	14	7	" 1908		
June ..	25	6	" ..	28	8	January ..	9	8
July ..	2	5	March ..	18	7	February ..	10	9
" ..	16	4	April ..	29	6	May ..	18	8
" ..	23	3	May ..	27	5			
October ..	22	4	June ..	17	4	June ..	15	7
November ..	5	5	July ..	1	3	July ..	25	6
December ..	10	6	September ..	30	4	" ..	14	4
						November ..	30	5
1909			1909			December ..	10	6
January ..	11	7	November ..	13	5	1909		
May ..	13	6	December ..	9	6	January ..	12	7
						" ..	28	8
June ..	3	5	1910			June ..	1	7
" ..	21	4	March ..	3	7	" ..	17	6
July ..	15	3	May ..	12	6	" ..	28	5
November ..	4	4	June ..	2	5	July ..	19	4
" ..	18	5	" ..	16	4			
" ..	25	6	" ..	30	3	1909		
1910			September ..	22	4	November ..	16	5
March ..	3	7				December ..	20	6
May ..	12	6	October ..	6	5	1910		
June ..	2	5	November ..	3	6	January ..	4	7
			December ..	1	7			
" ..	23	4				March ..	7	8
July ..	7	3	1911			May ..	13	7
October ..	6	4	February ..	23	8	June ..	7	6
November ..	3	5	March ..	30	7	" ..	20	5
" ..	17	6	May ..	11	6			
December ..	15	7	June ..	1	5	July ..	4	4
1911			" ..	15	4	November ..	8	5
May ..	18	6	August ..	3	3	" ..	18	6
June ..	1	5				December ..	20	7
			September ..	31	4	" ..	22	8
" ..	21	4				1911		
July ..	13	3	1912			May ..	23	7
October ..	19	4	January ..	11	6	June ..	7	6
December ..	21	5	" ..	18	7	" ..	19	5
1912			" ..	26	8	July ..	7	4
January ..	11	6	March ..	7	7	November ..	14	5
" ..	18	7				December ..	21	6
February ..	1	8	" ..	21	6	1912		
" ..	22	7	May ..	23	5	January ..	9	7
March ..	20	6	June ..	20	4	" ..	29	8
May ..	9	5	July ..	11	3	May ..	29	7
June ..	13	4	September ..	13	4	June ..	17	6
July ..	11	3	October ..	3	5	" ..	24	5
			November ..	14	6	July ..	8	4
October ..	3	4	" ..	28	7	November ..	12	5
November ..	14	5				December ..	2	6
" ..	28	6	1913			" ..	9	7
December ..	12	7	January ..	9	8			
" ..	27	8	February ..	13	7	" ..	30	8
1913			April ..	17	6	1913		
April ..	3	7	June ..	5	5	June ..	4	7
May ..	29	6	" ..	19	4	" ..	16	6
June ..	12	5	July ..	3	3	July ..	8	5
July ..	3	4						
" ..	17	3						

**BANKERS' CLEARING HOUSES.**

The principal Clearing Houses in India are those of Calcutta, Bombay, Madras, and Karachi, and of these the first two are by far the most important. The members at these places consist of the Presidency Banks, most of the Exchange Banks and English Banking Agency firms, and a few of the better known of the local Joint Stock Banks. No Bank is entitled to claim to be a member as of right and any application for admission to a Clearing must be proposed and seconded by two members and be subject thereafter to ballot by the existing members.

The duties of settling Bank are undertaken by the Presidency Bank at each of the places mentioned and a representative of each member attends at the office of that Bank on each business day at the time fixed to deliver all cheques he may have negotiated on other members and to receive in exchange all cheques drawn on him negotiated by the latter. After all the cheques have been received and delivered the representative of each Bank advises the settling Bank of the difference between his total receipts and deliveries and the settling Bank thereafter strikes a final balance to satisfy itself that the totals of the debtor balances agrees with the total of the creditor balances. The debtor Banks thereafter arrange to pay the amounts due by them to the settling Bank

during the course of the day and the latter in turn arranges to pay on receipt of those amounts the balances due to the creditor Banks. In practice however all the members keep Bank accounts with the settling Bank so that the final balances are settled by cheques and book entries thus doing away with the necessity for cash in any form.

The Clearing House figures can usually be taken as giving some indication as to the condition of trade and to some extent also as to how far the banking facilities available are being taken advantage of but in the latter respect at all events the statistics for India do not form as useful a guide as those in most other countries. This is due to the fact that hardly any of the numerous Joint Stock Banks which have been formed within recent years have so far been admitted as members of the various Clearing Houses and as few if any of these Banks have obtained the assistance of the members in having their cheques cleared the Clearing House returns merely represent the transactions of the members and do not include in any way the totals of the cheques drawn on or negotiated by Banks not represented on the Clearing.

The figures for the Clearing Houses in India above referred to are given below:—

**Total amount of Cheques Cleared Annually.***In lakhs of Rupees.*

		Calcutta.	Bombay.	Madras.	Karachi.	Total.
1901	..	Not available	6,511	1,338	178	8,027
1902	..	....	7,013	1,295	268	8,576
1903	..	....	8,762	1,464	340	10,566
1904	..	....	9,492	1,536	365	11,393
1905	..	....	10,927	1,560	324	12,811
1906	..	....	10,912	1,585	400	12,895
1907	..	22,444	12,045	1,548	530	37,167
1908	..	21,281	12,585	1,754	643	36,263
1909	..	19,776	11,375	1,948	702	36,801
1910	..	22,238	16,652	2,117	755	41,762
1911	..	25,763	17,605	2,083	762	46,213
1912	..	28,831	20,831	1,152	1,159	52,835

**Government of India Rupee Loans.**

The following are the Loans in the hands of the public still extant, all the others having been extinguished either by conversion or by discharge:—

- (1) Three & a half per cent. loan of 1842-43
- (2) Ditto 1851-55
- (3) Ditto 1885
- (4) Ditto 1879
- (5) Three per cent loan of 1896-97
- (6) Three & a half per cent. loan of 1900-01

The first four of these loans were made repayable at the option of Government on or after 31st July 1904 on three months' notice being given so that the position now as regards these loans is that Government are at liberty to discharge them at any time on giving three months' notice. In view however of the necessity of fresh borrowings by Government this power is not likely to be exercised for some considerable time to come.

The 3½ per cent. Loan of 1900-01 is repayable also at the option of Government, on or after 31st December 1920 on three months' notice being given and all loans issued since the year 1900 have been included in and form part of the 1900-01 loan.

In 1896 Government resolved in view of the easy condition of the money market to try the experiment of borrowing at 3 per cent. and the loan of Rs. 4 crores raised in that year was accordingly issued bearing that rate of interest. The opportunity was also taken to advertise for discharge the two 3½ per cent. loans of 1853-54 and 1893-94 but proprietors of these loans were given the option of transferring their holdings to the new 3 per cent. loan. The Rs. 4 crores loan was successfully floated and appeared to be a great success but it was soon seen that the public had no use for a 3 per cent. security and Government have never repeated the attempt to borrow at 3 per cent. The

successful tenderers for the loan of 1896-97 experienced great difficulty in disposing of any part of their holdings and as through course of time the notes became practically unmarketable it was generally felt that Government must do something to improve the market for the notes. Various proposals were submitted to Government with this end in view but the latter delayed taking any action in the matter until the year 1908. Such action took the form of giving holders the option of converting their 3 per cent. notes into 3½ per cent. notes of the 1900-01 loan on the following terms:—

- (1) If the face value of the 3 per cent. notes tendered for conversion is an exact multiple of Rs. 700 the tenderer will receive in exchange 3½ per cent. notes for 6-7ths of such face value.
- (2) If the face value of the 3 per cent. notes tendered for conversion does not form an exact multiple of Rs. 700 the tenderer has the option of receiving:—
  - (a) 3½ per cent. notes equivalent to the nearest lower multiple of Rs. 700 calculated as in Clause 1 together with the difference in 3 per cent. notes, or
  - (b) 3½ per cent. notes of the nearest higher equivalent face value in hundreds calculated as in Clause 1 on payment in cash of the difference between (1) 6-7ths of the face value of the 3 per cent. notes tendered and (11) the face value of the 3½ per cent. notes received in exchange.

The above offer is still in force but Government have reserved the right to withdraw it at any time on giving 6 months' notice. The balance of the 3 per cent. loan stood at Rs. 10.95 lacs on 31st March 1897, at Rs. 11.07 lacs on 30th September 1908 and at Rs. 8.42 lacs on 31st March 1913. The work connected with the payment of interest, &c., on Government loans is entrusted to the Presidency Banks in the 3 Presidency towns, to the District Treasuries elsewhere in India, and to the Bank of England in London.

Government debt may be held in the form of promissory notes or Stock Certificates but Notes or Certificates can only be issued in even hundreds of rupees. Promissory notes are transferable by endorsement and as such transfers do not require to be registered it follows that Government do not keep any record of the holders of such notes from time to time. A holder of a Stock Certificate is a registered holder however and transfers can only be made by transfer deed which must be submitted to and approved of by the authorities conducting the loan business on behalf of Government.

Interest is payable half yearly on each loan on the dates noted below.

Loan of 1842-43	1st Febr. & 1st August.
Loan of 1854-55	30th June & 31st Decr.
Loan of 1865	1st May & 1st Novr.
Loan of 1879	16th Jan'y. & 16th July.
Loan of 1896-97	30th June & 31st Decr.
Loan of 1900-01	30th June & 31st Decr.

Interest may be made payable at the option of the holder at the Public Debt Office Banks of Bengal, Bombay or Madras, at any Government Treasury, or at the Bank of England, London. In the case of Promissory Notes, presentation of the notes at the office where interest is payable is necessary before interest can be

drawn but this does not apply as regards Stock Certificates and interest warrants in respect of these are sent out to the registered holder as soon as interest falls due. The interest on notes exchanged to London is paid by rupee drafts on India.

### Renewal, Conversion, Consolidation and Sub-Division of Promissory Notes.

#### RENEWAL.

When all the spaces reserved for endorsements on the reverse of a note have been filled up or when the spaces utilised for recording payments of interest have been exhausted the note requires to be renewed before any further transfers can be allowed or interest drawn. The fee for such renewal is at the rate of ¼ per cent. on the face value of the note subject to a maximum of Re. 1 for each note but no renewal fee is charged in the case of a note on which no endorsements appear when the interest charges are expended.

#### CONVERSION.

Promissory Notes of the 3½ per cent. loans of 1842-43, 1854-55, 1865, 1879 and 1900-01 may be transferred to any other of those loans except that no transfer to the loan of 1900-01 from any of the other loans is admissible.

It is made a condition however before any such transfer is permitted that a full half-year's interest is due on the Promissory Note at the time it is presented for transfer.

The fees charged are the same as those applicable to renewals.

#### CONSOLIDATION AND SUB-DIVISION.

Notes of the same loan, on which interest has been paid up to the same date, may be consolidated or notes may be sub-divided into others of smaller denominations, but of the same loan, at the option of the proprietors, notes only being issued for Rs. 100 or multiples of Rs. 100.

The fee charged is at the rate of ¼ per cent. on the face value of the new notes received, subject to a maximum of Re. 1 for each note. The management of the debt in England is entrusted to the Bank of England who are paid commission at the rate of £300 per million pounds in respect of the sterling debt and £400 per crore of rupees in respect of the rupee debt. The charge for the latter is however subject to a minimum of £8,000.

### Quotations for 3½ per cent. Government of India Loans.

Jany.	Rupee Loan.		Sterling Loan.	
	Rs.		£	
1895	..	103.6 per cent.	112½	per cent.
1896	..	105.7	117	"
1897	..	98	118½	"
1898	..	95.13	117	"
1899	..	94	116½	"
1900	..	95.10	110	"
1901	..	90	108	"
1902	..	95.14	108	"
1903	..	97.9	107	"
1904	..	95.2	103	"
1905	..	98.1	106½	"
1906	..	97.14	105½	"
1907	..	95.7	104	"
1908	..	96.3	102½	"
1909	..	94.11	99	"
1910	..	93.7	98½	"
1911	..	95.1	95½	"
1912	..	96.2	94	"
1913	..	94.9	91.7-13	"



## Indian Education.

Indian Education\* is unintelligible except through its history. Seen thus it affords the spectacle of a growth which, while to one it will appear as a huge blunder based on an initial error of judgment easily avoided, to another stands out as a symbol of sincerity and honest endeavour on the part of a far-sighted race of rulers whose aim has been to guide a people alien in sentiments and prejudices into the channels of thought and attitudes best calculated to fit them for the needs of modern life and western ideals. A careful survey of the history of Indian Education will reveal the opposition between two tendencies whose struggle for supremacy was finally decided by Lord Macaulay's Minute of 1835. The beginnings of public education in India belong to a generation before Macaulay's regime. But it was not till Macaulay poured such emphatic contempt on Oriental learning that the Government in India in general definitely chose the path of English education as the road to future progress. Macaulay's Minute crystallizes a point of view which had already some years before begun to impress itself upon educationists in this country. And when we find a statesman of the acumen of Lord Curzon saying "Ever since the cold breath of Macaulay's rhetoric passed over the field of the Indian languages and Indian text books, the elementary education of the people in their own tongue has shrivelled and pined," we must not suppose that he regarded Macaulay as solely responsible for the trend which modern education has taken. It needs but a cursory glance at the history of education in India under British rule to make clear once and for all that education on Western lines was necessary as an answer to a growing demand which none but callous rulers could refuse, as also for the very forcible reason that without some kind of organised training of Indians in English composition and ideas the practical work of administration which demands an ever-increasing number of clerical assistants to meet the needs of steadily accumulating office work, could never have been carried on. These two points give one the clue to the main features of Indian education (1) the claim of newly-awakened races to be allowed to substitute for their own lifeless learning the progressive culture of modern

Western thought; and (2) the obvious utility of a system whose object should be, in part at least, to assist Indians to a development of their capacities and sympathies on lines which might be of service in the actual government of the country. With reference to this last point the following consideration may be urged. The object of our great Universities and Public Schools in England is generally admitted to be something more than the satisfaction of purely theoretical interests. They are meant to be the training ground of capable public servants. Let us once admit this to be a necessity in England; if then we recognise the impossibility of administering the great Indian Empire through Englishmen alone, there seems to be no adequate reason for refusing to apply the same methods to India. And as there is nothing in Indian history to show the particular value of any Oriental system of education as a training for public service, the logical conclusion is that Indians should be educated in English along Western lines. If an observer were confronted with a country ruled by foreign administrators backed up by a foreign army, he would infer on a priori grounds that the said foreign power had included in its legislation a system of education analogous to its own---if his opinion of it had not led him to suppose that it had adopted the sceptical or ungenerous policy of not educating its subjects at all. That would present itself as the only possible alternative. And the problem of Indian education may be said to resolve itself into a doubt which of the two policies is preferable, that of non-education or that of English education. Yet the doubt itself has only to be stated to be solved. And the task of explaining Indian education becomes in the end simply one of showing how the initial encouragement on the part of British rulers of Oriental learning did not so much begin education as foster the desire for education, until at last the Government undertook the duty of guiding such aspirations into what it conceived to be the right channel. To this end our aim will be to show (1) Indian education in the stage of conception, and its birth somewhere about the time of Macaulay's Minute, (2) its growth and organisation, (3) its present situation.

### THE BIRTH OF INDIAN EDUCATION.

The seeds of an interest in education may be said to have been sown by the foundation of the Calcutta Madrasa by Warren Hastings in 1781 and the Sanskrit College at Benares by Jonathan Duncan in 1791. Whatever interest there was in learning during this period was directed solely to the encouragement of Sanskrit and Arabic. Even the Act of 1813 which set apart a lakh of rupees for "the revival and promotion of literature and the encouragement of learned natives of India, and for the introduction and promotion of a knowledge of the sciences in the British territories of India" was interpreted as a scheme for the encouragement of Sanskrit and Arabic; and it was not till the famous meeting of the Gov-

ernor-General's Council in 1835 that it was definitely discussed whether it might not accord with the meaning of the Act of 1813 to use at least part of the money for the encouragement of the study of English. But other forces had been already at work. In 1817 the Hindu College was opened at Calcutta with the express object of instructing "the sons of Hindus in the European and Asiatic languages and sciences," English being assigned the most prominent position. The moving spirit which led to the foundation of this institution was Raja Ram Mohan Roy who in the words of Mr. H. R. James in his important book "Education and Statesmanship in India," "incarnates the impulse which led thinking

\*This term is in common use for "Education in India," just as "English Education" means in India, education through the medium of English in Western learning.

Statement of Educational Progress in INDIA.

	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.
Area in square miles .. .. .	1,118,566	1,151,022	1,144,105	1,145,728	1,152,894	1,135,513
Population .. .. .	122,470,010	123,247,777	123,249,836	122,699,630	130,113,723	130,408,551
Male .. .. .	118,794,958	119,570,636	119,570,469	119,017,938	124,706,893	124,960,002
Female .. .. .	241,231,968	242,819,633	242,820,305	241,717,558	254,320,616	255,368,553
Total Population .. .. .	123	126	123	128	128	130
Public Institutions for Males.	1,105	1,116	1,174	1,100	1,203	1,219
Number of arts colleges .. .. .	102,347	104,834	106,329	107,463	108,144	110,660
Number of high schools .. .. .	18,758	19,334	18,738	22,012	24,806	29,369
Number of primary schools .. .. .	286,301	301,565	215,905	344,047	354,704	360,881
Male Scholars in Public Institutions.	43,451,618	3,620,044	3,786,462	3,558,671	3,936,310	4,202,631
In arts colleges .. .. .	227	231	251	26	25	268
In high schools .. .. .	112	114	114	123	130	135
In primary schools .. .. .	9,983	10,845	11,511	11,773	12,027	12,886
Percentage of male scholars in public institutions to male population of school-going age.	160	175	185	217	241	279
Public Institutions for Females.	11,885	12,924	13,654	14,237	14,864	16,884
Number of arts colleges .. .. .	4513,248	570,740	631,906	698,636	689,471	785,511
Number of high schools .. .. .	52	36	40	42	42	47
Number of primary schools .. .. .	4,183,041	4,428,175	4,650,134	4,820,554	4,930,084	5,233,065
Female Scholars in Public Institutions.	581,439	647,786	720,312	763,580	793,646	875,660
In arts colleges .. .. .	4,744,480	5,075,961	5,370,476	5,590,134	5,723,730	6,128,725
In high schools .. .. .	3,388,632	3,690,146	3,972,204	4,203,305	4,345,582	4,780,721
Percentage of female scholars in public institutions to female population of school-going age.	184.93	198.34	212.42	234.30	242.08	260.50
Total Scholars in public institutions	91.16	1,01.86	1,17.24	1,02.54	1,04.32	1,03.80
Total	20.21	22.22	24.27	24.56	25.00	25.54
Expenditure (in thousands of rupees).	2,96.35	3,22.62	3,53.93	3,61.10	3,70.40	4,05.23
From provincial revenues .. .. .	1,43.21	1,57.30	1,69.37	1,85.42	2,00.67	2,19.09
From local funds .. .. .	1,14.48	1,21.67	1,35.18	1,40.24	1,47.61	1,61.61
From other sources .. .. .	5,59.04	6,01.59	6,38.48	6,86.76	7,18.68	7,85.93
GRAND TOTAL OF EXPENDITURE .. .. .						

\* High schools include vernacular high schools also, in some provinces.

† Corrected figures from General Table 1 (Q.R.).

‡ The percentages for 1910-11, being reckoned on the new Census figures are slightly misleading for purposes of comparison with previous years. This remark applies throughout all the Tables.

Indians to desire and work for English Education." From that time forward the farsighted observer must have realised that a movement had begun which whether we would or not we could no longer check. The same phenomenon was witnessed on the Western side of India; and Mountstuart Elphinstone's Minute on Education, dated March 1821, deserves particular notice for its recognition of the necessity of introducing a knowledge of European sciences into any scheme of education as well as for its wise restraint in dealing with Oriental learning. For though his declared object was to establish English schools and encourage the natives in the pursuit of European sciences, he repudiates the idea that the purely Hindu side of education should be totally abandoned. In his own words: "It would surely be a preposterous way of adding to the intellectual treasures of a nation to begin by the destruction of its indigenous literature; and I cannot but think that the future attainments of the natives will be increased in extent

as well as in variety by being, as it were, engrafted on their own previous knowledge and imbued with their own original and peculiar character." Elphinstone's interest in educational matters was sufficiently appreciated by the citizens of Bombay who in 1827, the year of his departure, resolved to found two professorships in his memory "to be held by gentlemen from Great Britain until the happy period when natives shall be fully competent to hold them." It is sufficiently clear not only that an interest had been aroused in English education but that some attempts had been made to meet the interest before 1835, though Lord Curzon may have given a just estimate of the situation at the Educational Conference of Simla in 1901 when he said: "Education there was; but it was narrow in its range, exclusive and spasmodic in its application, religious rather than secular, theoretical rather than utilitarian in character. Above all, it wholly lacked any scientific organisation and it was confined to a single sex."

### GROWTH AND ORGANISATION OF ENGLISH EDUCATION IN INDIA.

It is, of course, just the possibility of engrafting modern western knowledge on the old Indian stocks that is open to doubt. Here lies the significance of Macaulay's famous tirade on Oriental science, which deserves quoting for the contrast it forms to the just estimate of Mountstuart Elphinstone. It is perhaps more offensive to Indian ears for the element of truth it contains, though the entirely unsympathetic form in which he expresses himself is a sufficient stumbling-block in itself. "The question before us," he writes, "is simply whether, when it is in our power to teach this language—English we shall teach languages in which, by universal confession, there are no books on any subject to be compared to our own; whether, when we can teach European science, we shall teach systems which, by universal confession, wherever they differ from those of Europe, differ for the worse; and whether, when we patronise sound philosophy and true history, we shall countenance at the public expense, medical doctrines which would disgrace an English farrier, astronomy which would move laughter in the girls at an English boarding-school, history abounding with kings thirty feet high and reigns thirty thousand years long, and geography made up of seas of treacle and seas of butter." The reiterated phrase "by universal confession" is beyond the mark; but Macaulay was surely right in his valuation of ancient Hindu science *as science* or history *as history*. Where he was surely wrong was in his implied condemnation of Indian literature *as literature*. From that point of view you might just as well condemn Homer for his mythology (as indeed Plato does in the Republic). Where, again, he was possibly wrong was in his vehement antipathy to the view that, if modern science is to be taught, it should be taught through the medium of Indian languages. Yet here too he represents an attitude which was fast becoming that of enlightened Indians. And, if there were no other reasons, the ultimate utility to the Government itself of Indians trained in the Eng-

lish language is a strong argument in his favour. This utilitarian motive for English education lurks often unconscious and unrecognised under the whole progress of Indian education;—to its detriment as some think, for the great charge against the modern Indian student is that he regards a career in Government schools and colleges not so much *as* education and an end in itself as a mere means to more or less lucrative employment in Government offices. Be that as it may, we shall probably not be far wrong in saying that the famous Minute of 1835 was in spirit right but in expression wrong. Its result was that the Government of Lord William Bentinck made the following momentous Resolution: "His Lordship in Council is of opinion that the great object of the British Government ought to be the promotion of European literature and science among the natives of India, and that all the funds appropriated for the purposes of education would be best employed on English education alone."

#### Universities Established.

Macaulay's period of service on the Committee of Public Instruction (first formed in 1824) gave considerable impetus to the movement he advocated, as figures will show. Whereas the Committee had no more than fourteen institutions under its control in Bengal when he joined it, this number was more than trebled by the end of 1837, the larger part being Anglo-Vernacular schools or colleges. Progress continued along these lines in Bengal, and more slowly in other Presidencies, until in 1852 the numbers under instruction in Government colleges amounted to 25,372 of which 9,893 were for English education (James p.34). The increase of numbers must have been materially assisted by a Resolution of Lord Hardinge's Government in 1844 in which it was stated that in the selection of candidates for public employment, preference would be given to those who had been educated in the newly fashioned type of institution. An adherent of the old-fashioned intellectual ideal of college

Statement of Educational Progress in MADRAS.

	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.
Area in square miles .. .. .						
Population .. .. .	141,866 18,841,971 19,368,391 38,210,362	No change.	No change.	No change.	141,866 20,152,916 20,770,608 40,923,584	142,491 20,389,666 21,028,264 41,418,930
{ Male .. .. .						
{ Female .. .. .						
Total Population .. .. .						
Public Institutions for Males.						
Number of arts colleges .. .. .	34	53	32	30	30	30
Number of high schools .. .. .	171	170	169	172	168	168
Number of primary schools .. .. .	21,379	21,929	22,412	23,108	23,426	24,044
Male Scholars in Public Institutions.						
In arts colleges .. .. .	4,648	4,933	4,297	3,911	3,709	4,893
In high schools .. .. .	57,537	61,185	66,159	72,673	69,543	71,394
In primary schools .. .. .	619,833	650,716	689,817	739,933	766,884	829,331
Percentage of male scholars in public institutions to male population of school-going age.	25.7	27.4	27.5	30.3	29.7	30.8
Public Institutions for Females.						
Number of arts colleges .. .. .	2	2	1	1	1	2
Number of high schools* .. .. .	26	28	32	31	32	33
Number of primary schools .. .. .	899	893	862	886	900	1,102
Female Scholars in Public Institutions.						
In arts colleges .. .. .	39	37	38	37	32	46
In high schools .. .. .	3,279	3,808	4,981	4,312	4,027	4,510
In primary schools .. .. .	120,253	127,107	135,784	147,910	156,027	199,719
Percentage of female scholars in public institutions to female population of school-going age.	5.1	5.4	5.8	6.2	6.1	6.6
TOTAL SCHOLARS in public institutions (Male .. .. .	726,926	775,450	813,056	870,505	896,701	943,369
Female .. .. .	148,740	156,948	168,167	181,461	190,861	209,517
Total .. .. .	875,666	932,398	981,223	1,051,966	1,087,562	1,152,886
TOTAL SCHOLARS (both male and female) in all institutions.	1,007,118	1,057,170	1,099,615	1,179,048	1,215,725	1,280,065
Expenditure (in thousands of rupees).						
From provincial revenues .. .. .	24.73	28.40	27.79	39.07	43.16	41.22
From local funds .. .. .	14.97	16.69	20.91	11.45	11.34	19.28
From municipal funds .. .. .	3.09	2.95	3.84	3.17	3.21	3.15
Total Expenditure from public funds .. .. .	42.79	48.04	52.54	53.69	57.61	59.65
From fees .. .. .	29.98	31.98	32.50	34.89	37.29	37.90
From other sources .. .. .	24.87	26.89	32.37	30.81	32.78	38.10
GRAND TOTAL OF EXPENDITURE .. .. .	97.64	1,06.91	1,71.41	1,19.39	1,27.68	1,35.65

\* Include also vernacular high schools for girls.

life would see in this Resolution a fatal concession to the utilitarian view and a fatal misdirection of public attitude towards education.

Meanwhile educational institutions had so multiplied throughout India that the thing was becoming ripe for the decisions arrived at in Sir Charles Wood's Despatch of 1854. The old idea had been that the education imparted to the higher classes of society would gradually 'filter down' to the lower classes. How little true it is that education could ever filter down to the masses in India by its own percolative properties is evident enough even now when our wide system of schools entirely fails to touch the majority of India's population. The Despatch of 1854 marks a departure from the 'filtration' policy and a recognition on the part of an enlightened Government of educational duties, even towards sections of the population who had never entertained the idea of Government obligations in their direction. The result of the Despatch was the formation of Departments of Public Instruction on lines which do not differ at all essentially from Departments of Public Instruction of the present day. They represent a direct desertion of the *laissez faire* or *filtration* policy, and an attempt on the part of Government to 'combat the ignorance of the people which may be considered the greatest curse of the country.' Another feature of the Despatch was an outline of a 'University' system, which formed the basis of the scheme adopted in 1857 when Acts were passed for the incorporation of three Universities, one for Calcutta, one for Bombay and one for Madras. As Lord Curzon said: "The Indian Universities may be described as the first fruits of the broad and liberal policy of the Education Despatch of 1854." He might have gone further and said that the scheme outlined in it not only originated universities but contained suggestions for their proper conduct whose value has only recently been understood. In its proposal of a distinction between "common degrees" and "honours" degrees it anticipates the actual procedure of at least one University, that of Bombay, by nearly sixty years.

### Private Agencies.

The Despatch of 1854 and the orders based on it, together with later resolutions and modifications, organised education into something like the present system. Government took the whole thing into its own hands and established Universities, colleges, high schools and middle schools. Efforts were made to extend elementary education so, as to reach the masses and also to establish a system of inspection with a view to guaranteeing the efficiency of private institutions which should be allowed grants-in-aid as well as Government Institutions themselves. Expansion under control runs up the aims of this combined system of grants-in-aid and inspection. As Mr. James puts it: "Local management under Government inspection stimulated by grants-in-aid, was to supplement and finally, perhaps, in large measure, to supersede direct management by Government." (p. 48) The latter part of the sentence may have been the

inspiration of the Commission of 1882 appointed to inquire into the way in which the recommendations of the Despatch of 1854 had been carried out. The result of the Commission was to relax the control exercised by Government over education. Government's withdrawal was intended to refer only to secondary instruction. The idea was to encourage private enterprise in the founding of secondary schools. But though the recommendations of the Commission included much talk of conditions and cautions and of the necessity of maintaining a high standard, the addition of a further recommendation that the managers of aided schools and colleges be permitted, if they wished, to charge less fees than Government schools of the same class led in the result to a general deterioration of standard. The recommendations of this Commission appear to some as a charter of inefficiency. They are the avenue to educational institutions run as a business proposition. Meanwhile perhaps the most creditable feature of the Commission's Report was its insistence on the importance of Primary Education and its recommendation "that primary education be declared to be that part of the whole system of Public Instruction which possesses an almost exclusive claim on local funds set apart for education and a large claim on provincial revenues." The last creditable feature is its recommendation "that preference be given to that system which regulates the aid given mainly according to the results of examination." To pay by results is fully to encourage the examining institution.

### Great Expansion.

The period from 1882 to beginning of the new century is one of phenomenal expansion. There was a general stampede for education, and no proper regard was paid to the standard or quality of the product. It is this period which if any deserves the opprobrium incurred by education in India. And it is the universities which stand out as the chief sinners. There can be no reasonable doubt that students were being turned out with degrees attached to their names who could not be regarded as educated from any respectable standpoint. As a man who is doubtful whether an act of his really is so praiseworthy as the general chorus of congratulation had led him to suppose, suddenly, with tremors at the thought of the revision of opinion that is sure to follow if he turns out to have done wrong, feels certain of his error, so our Governors and Chancellors and Vice-Chancellors of this period gradually arrived at the conviction that something was wrong with the seemingly excellent product of the Despatch of 1854 and the Commission of 1882. Criticism began from without, but finally it invaded the sphere of Convocation addresses. At last in 1901 the Vice-Chancellor of the University of Calcutta made this statement: "For the first time, the Chancellor asks the University to consider the possibility of constitutional reform." In September of that year an educational conference was convened at Simla by the Viceroy Lord Curzon. In 1902 the Indian Universities Commission was appointed and in 1904 an Act was passed to amend the law relating to the Universities of British India.

Statement of Educational Progress in BOMBAY.

	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.
Area in square miles .. .. .	188,826				188,826	188,826
Population .. .. .	13,098,354				14,006,375	14,013,522
	12,373,014				13,071,673	13,074,273
	25,471,368				27,078,048	27,087,795
Total Population .. .. .						
<i>Public Institutions for Males.</i>						
Number of arts colleges .. .. .	10	11	11	11	11	11
Number of high schools .. .. .	114	122	122	114	117	129
Number of primary schools .. .. .	9,455	9,602	9,900	10,686	11,257	11,603
<i>Male Scholars in Public Institutions.</i>						
In arts colleges .. .. .	2,690	2,567	2,613	2,938	3,177	3,643
In high schools .. .. .	31,860	33,079	35,921	37,707	39,569	41,325
In primary schools .. .. .	490,585	515,382	539,513	580,927	593,197	630,427
Percentage of male scholars in public institutions to male population of school-going age.	28.1	29.4	30.9	33.2	31.8	33.6
<i>Public Institutions for Females.</i>						
Number of arts colleges .. .. .	22	23	25	26	24	27
Number of high schools .. .. .	997	1,026	1,030	1,104	1,121	1,254
Number of primary schools .. .. .						
<i>Female Scholars in Public Institutions.</i>						
In arts colleges .. .. .	57	53	60	76	81	78
In high schools .. .. .	2,517	2,555	2,839	2,929	2,987	3,662
In primary schools .. .. .	89,044	92,158	101,328	109,606	112,135	126,703
Percentage of female scholars in public institutions to female population of school-going age.	5.1	5.3	5.8	6.3	6.1	6.9
TOTAL SCHOLARS in public institutions { Male .. .. .	551,345	578,348	607,537	633,704	667,469	707,328
Female .. .. .	95,432	98,799	103,176	116,731	119,596	134,981
Total .. .. .	646,777	677,147	710,713	750,435	787,065	842,309
TOTAL SCHOLARS (both male and female) in all institutions.	720,547	749,391	792,559	830,293	868,535	922,877
<i>Expenditure (in thousands of rupees).</i>						
From provincial revenues .. .. .	43.08	44.90	46.72	49.04	46.60	53.93
From local funds .. .. .	7.82	8.72	10.77	10.34	10.84	10.76
From municipal funds .. .. .	5.88	7.08	7.34	7.50	9.54	10.14
Total Expenditure from public funds .. .. .	56.78	60.70	64.83	66.88	66.98	74.83
From fees .. .. .	20.16	21.81	22.40	23.06	24.19	26.27
From other sources .. .. .	29.53	30.92	30.80	32.68	32.55	35.02
GRAND TOTAL OF EXPENDITURE .. .. .	1,06.43	1,13.43	1,18.03	1,23.52	1,24.00	1,36.17

### UNIVERSITIES ACT AND PRESENT SITUATION.

The Commission of 1882, which favoured the policy of withdrawing higher education from the control of Government within certain limits and of allowing colleges and secondary schools conducted by private enterprise to reduce their fees, though in many details it made admirable proposals, yet by its general policy led to a general inefficiency and lowering of standard in higher education. In some matters it anticipated all that has hitherto been done. For example, in suggesting that there should be two sides in secondary schools, "one leading to the entrance examination of the Universities, the other of a more practical character, intended to fit youths for commercial and other non-literary pursuits," it still anticipates Government action by many years. The Universities Commission of 1902 proposed to make the School Final examination a preliminary test for certain professions and posts in Government service and to substitute it for the Matriculation as a general qualification, even, if possible, as a test of fitness to enter the University. The latest statement of Government policy (dated Feb. 1913) re-asserts and emphasises these proposals, which are an attempt to enforce the suggestion of the Commission of 1882. But the general relaxation of Government control seemed to Lord Curzon the radical evil of his day.

#### New Senates.

Not to speak of the lowering of efficiency consequent on the lowering of fees in schools and colleges by private enterprise, we may mention among the more glaring defects which Lord Curzon had to face the maladministration of the Universities due to the mistake of their composition. All kinds of people had crept into the Senates of Universities who from the true educational point of view had no business there. The numbers had become unwieldy so that it was impossible to get passed even necessary reforms. The progress of education was retarded and modern innovations simply ignored. As reconstituted the Universities have revised their regulations and though they have not ceased to be examining universities they have taken upon themselves the necessary function of inspecting the colleges affiliated to them. They have also received powers of becoming teaching bodies. Little has yet been done to make them that; but it may be judged from utterances in their Senates that they are becoming increasingly conscious of their possibilities or duties in this direction. In the last Resolution on Education (Feb. 1913) it has been decided that the principle of an examining and affiliating University must still be maintained. Nevertheless a movement is promised in the direction of "new local teaching and residential Universities within each of the provinces in harmony with the best modern opinion as to the right road to educational efficiency." Under the present system it is no longer impossible to pass radical changes. The Senate of each University has been reduced to one hundred in number; and the Act lays down that in the election of members of the Syndicate, the executive body in the University, a certain number of those actively engaged in educational work should be selected.

To quote from the Fifth Quinquennial Review: "the Colleges have defined rights of representation on the Syndicate, to this extent that among the elected members of the Syndicate a number not falling short by more than one of a majority must be heads or professors of colleges." One University has required by its regulations that a majority of the elected members of the Syndicate shall be heads or professors of colleges. It is evident then that the working bodies in the Universities have been cleaned up and are now so constituted as to contain the obviously essential educational element.

#### Policy of 1913.

The influence of Lord Curzon on educational progress has been generally salutary. For though his reforms had the aim of restriction and raised a general outcry in India—"the least that Lord Curzon was charged with was a deliberate attempt to throttle higher education in India," ("Indian Unrest" by Valentine Chirol)—it is now recognised by enlightened thinkers that all branches of education required careful review. Before any quantitative increase took place, it was necessary to reform the qualitative basis. A glance at the work done as summarised by the last Quinquennial Review will show how the machinery has been cleaned. The Universities are now respectable; secondary schools have been improved and placed under stricter conditions of recognition; attention, though insufficient, has been paid to the training of teachers; in primary schools examinations have been simplified, buildings improved, the pay of teachers raised, the courses of studies revised and widened. In these circumstances the latest Government Resolution of 1913 is justified in its aims to extend educational institutions on every side. It is proposed to double the number of primary schools (a scheme which may be regarded as a compromise between the policy of *laissez faire* and that of compulsory education), and to encourage the establishment of a greater number of secondary schools on the lines of private enterprise by increased grants (a condition of submission to Government inspection, recognition, and control. One of the most interesting features of the Resolution is Government's desire to develop the hostel system. In the words of the Resolution: "The Government of India desire to see the hostel system develop until there is adequate residential accommodation attached to every college and secondary school in India." Altogether the Resolution of February 1913 ranks as a notable pronouncement, ranging as it does over every conceivable topic, from the Universities to what is often called Female Education, with a depth of insight and a readiness to face the most complex problems of finance and organisation that augurs well for educational progress. There is reason to hope that our educational system in India will stand out as one of the most remarkable achievements in the history of imperial politics.

#### University Organisations.

These Universities are examining bodies with colleges affiliated to them. The Govern-

Statement of Educational Progress in BENGAL.

	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.
Area in square miles .. .. .	148,502	124,432	No change.	124,492	124,492	No change.
Population .. .. .	27,140,616	26,674,767	26,675,026	26,674,767	27,436,187	27,436,187
Male .. .. .	27,621,913	27,097,147	27,097,300	26,543,049	27,581,153	27,581,153
Female .. .. .	54,662,329	53,771,914	53,772,586	52,668,869	55,023,340	55,023,340
Total Population .. .. .	82,284,242	80,869,061	80,869,886	79,211,918	82,604,493	82,604,493
<i>Public Institutions for Males.</i>						
Number of arts colleges .. .. .	32	32	29	29	29	29
Number of high schools .. .. .	337	337	337	336	339	338
Number of primary schools .. .. .	33,982	33,980	34,480	35,201	35,437	36,342
<i>Male Scholars in Public Institutions.</i>						
In arts colleges .. .. .	65,166	5,455	4,613	7,107	8,255	9,635
In high schools .. .. .	80,327	80,380	82,822	87,172	91,844	103,096
In primary schools .. .. .	910,681	934,121	968,939	992,163	997,953	1,047,769
Percentage of male scholars in public institutions to male population of school-going age.	26.8	28.6	30.2	32.0	31.4	33.2
<i>Public Institutions for Females.</i>						
Number of arts colleges .. .. .	2	2	9	2	9	3
Number of high schools .. .. .	14	15	17	17	19	19
Number of primary schools .. .. .	3,235	3,384	3,029	3,065	3,052	3,124
<i>Female Scholars in Public Institutions.</i>						
In arts colleges .. .. .	24	38	42	47	63	81
In high schools .. .. .	1,467	1,631	1,974	2,046	2,301	2,423
In primary schools .. .. .	117,296	127,803	139,904	145,233	146,223	153,616
Percentage of female scholars in public institutions to female population of school-going age.	3.0	3.5	3.9	4.2	4.2	4.6
TOTAL SCHOLARS in public institutions (Males + Females) .. .. .	1,090,123	1,146,567	1,208,718	1,234,914	1,290,621	1,364,946
Total .. .. .	124,886	131,974	150,562	167,505	173,207	189,971
Total .. .. .	1,215,014	1,288,541	1,359,280	1,402,419	1,463,828	1,551,917
TOTAL SCHOLARS (both male and female) in all institutions.	1,269,058	1,338,190	1,421,349	1,475,376	1,518,239	1,609,360
<i>Expenditure (in thousands of rupees).</i>						
From provincial revenues .. .. .	36.67	41.38	49.79	49.93	50.16	54.76
From local funds .. .. .	10.93	11.19	11.56	11.36	11.64	11.64
From municipal funds .. .. .	1.20	1.31	1.32	1.32	1.41	1.70
Total Expenditure from public funds .. .. .	48.80	53.88	62.67	62.70	63.38	68.10
From fees .. .. .	43.43	46.31	52.71	56.19	61.02	67.88
From other sources .. .. .	24.40	25.37	29.20	32.00	36.31	36.04
GRAND TOTAL OF EXPENDITURE .. .. .	1,16.63	1,25.56	1,44.53	1,50.89	1,60.71	1,72.02

a Excluding the D. U. Mission College, Hazaribagh.



nor-General is the Chancellor of the University of Calcutta and the head of the provincial Government the Chancellor of each of the other Universities. The Vice-Chancellor is nominated by each head of Government. The *executive* body is the Syndicate which is now organised so as to contain a larger educational element. Over this body the Vice-Chancellor presides, all other members being elected by the various Faculties except the Director of Public Instruction who is a member *ex officio*. The secretarial work of all university business is done by an officer appointed by the Senate, the Registrar. The *legislative* body is the Senate which is divided into faculties, a Faculty being a section of the Senate appointed

to control the work of a particular subject. The Faculties are in most cases those of Arts, science, law, medicine and engineering. There is an oriental faculty in the Punjab University above. Each of the main branches of study in a University is represented in addition by a Board of Studies, that is, an advisory body whose duties are to look after the curricula and recommend text books or books which represent the standard of knowledge required in the various examinations. The Senate as a whole consists of from 75 to 100 members the majority of whom are nominated by Government, the remainder being elected by the Senate or its faculties or by the body of graduates of the University.

#### UNIVERSITIES.

*Constitution.*—There are in British India five Universities with the following territorial limits (V. Fifth Quinquennial Review P. 7)—

University.	Territorial Limits.	
	Province (including any Native State under its political control and any foreign possession included within its boundaries).	Native State or Colony.
Calcutta .. .. .	Bengal, Burma and Assam.	
Madras .. .. .	Madras and Coorg .. ..	Hyderabad, Mysore and Ceylon.
Bombay .. .. .	Bombay and Sind .. ..	Baroda.
Allahabad .. .. .	United Provinces of Agra and Oudh, the Central Provinces (including Betar) and Ajmer-Merwara.	The States included in the Rajputana and Central India Agencies.
Punjab .. .. .	Punjab, North-West Frontier Province and British Baluchistan.	Kashmir and Baluchistan.

#### Courses and Examinations.

The Matriculation Examination is the test for entrance to a University. After matriculation, if the student decides to graduate in Arts he must take a four years' course. After two years he takes the Intermediate Examination. After another two years he may appear for the Examination for Bachelor of Arts. The regulations with regard to Honours vary in the different Universities. In Calcutta the honours and pass courses are separate. In Bombay the honours student takes in addition to the pass three extra papers. In Madras the honours course is taken the year after and in addition to the pass course. The degree of Master of Arts requires a further examination (except in Madras) which is taken one or two years after the examination for the B. A. degree. If the student elects to take science, his course is one of four years. In some Universities he receives the degree of B. A., in others a separate degree of B. Sc. Where the separation between Arts and Science is clearly defined, the student takes the Inter. Examination in Science two years after Matriculation, and two years after this examination appears for that of B.Sc. Those students who choose a professional course, *e.g.*, agri-

culture, medicine or engineering, must in most cases first attend an Arts College for one or two years before proceeding to the professional college. The student who has graduated as Bachelor at a University can graduate as a Bachelor of Law in two years.

The average annual output of graduates is reckoned in the Fifth Quinquennial Review at 1935, and the proportion of students who graduate in the four main faculties is given as follows:—

Arts .. ..	85%
Science .. ..	20%
Medicine .. ..	9%
Engineering .. ..	4%

But it should be remembered that in some universities the Arts degree is given for Science subjects.

#### Dacca University.

One of the most interesting features of the last Government Resolution on education is the decision to found a teaching and residential university at Dacca. Government also profess themselves willing to sanction under certain

Statement of Educational Progress in EASTERN BENGAL and ASSAM.

	1903-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.
Area in square miles .. .. .	101,147	No change.	No change.	No change.	111,645	No change.
Population .. { Male .. .. .	15,670,409	No change.	No change.	No change.	17,706,396	No change.
.. { Female .. .. .	15,108,725	No change.	No change.	No change.	16,857,966	No change.
Total Population	30,788,134				34,564,362	
<i>Public Institutions for Males.</i>						
Number of arts colleges .. .. .	11	11	11	11	10	10
Number of high schools .. .. .	912	917	216	216	217	224
Number of primary schools .. .. .	17,531	17,516	18,042	17,325	17,292	17,723
<i>Male Scholars in Public Institutions.</i>						
In arts colleges .. .. .	1,197	1,394	1,329	2,034	2,418	2,989
In high schools .. .. .	47,135	49,867	57,360	56,982	64,317	74,881
In primary schools .. .. .	543,088	560,342	627,324	621,087	623,925	672,835
Percentage of male scholars in public institutions to male population of school-going age.	29.6	31.2	33.6	33.4	30.3	33.1
<i>Public Institution for Females.</i>						
Number of arts colleges .. .. .	3	3	3	3	3	4
Number of high schools .. .. .	2,789	3,284	4,101	4,219	4,527	4,957
Number of primary schools .. .. .						
<i>Female Scholars in Public Institutions.</i>						
In arts colleges .. .. .	321	377	358	333	478	716
In high schools .. .. .	68,903	83,695	111,307	119,979	128,737	142,364
In primary schools .. .. .	2.3	3.8	5.0	5.3	5.2	5.7
Percentage of female scholars in public institutions to female population of school-going age.						
<b>TOTAL SCHOLARS in public institutions.</b> { Male .. .. .	697,004	732,813	790,175	755,146	805,311	880,500
.. { Female .. .. .	32,683	39,133	113,595	132,363	131,342	145,378
<b>TOTAL</b>	749,687	821,976	903,773	907,509	936,653	1,025,876
<b>TOTAL SCHOLARS (both male and female) in all institutions.</b>	815,369	880,691	933,123	934,883	984,213	1,075,124
<i>Expenditure (in thousands of rupees).</i>						
From provincial revenues .. .. .	13.03	16.13	20.21	19.37	22.05	25.34
From local funds .. .. .	11.78	13.58	14.31	13.24	13.38	14.29
From municipal funds .. .. .	32	34	42	51	47	48
Total Expenditure from public funds .. .. .	25.13	30.05	35.51	33.12	35.90	40.11
From fees .. .. .	18.52	20.05	22.10	23.44	26.67	30.15
From other sources .. .. .	7.59	8.19	8.70	9.38	10.48	10.20
<b>GRAND TOTAL OF EXPENDITURE</b>	51.24	58.29	66.34	65.94	73.05	80.46

conditions the establishment of similar universities at Aligarh and Benares and elsewhere as occasion may demand. This experiment may be regarded as an initial attempt to get away from the affiliating and examining type of University and to conform to that ideal of a University which requires it not only to confer degrees but to supervise the training of intellect and character as closely as possible. A University of this type will turn out graduates who may be trusted to have in their degree satisfactory credentials about their general character and ability. Under the existing system the University turns out graduates of whom it knows absolutely nothing beyond what it learns in examinations.

### Colleges.

Affiliated to the University are colleges, which the Universities have power to inspect and regulate. In 1907 the number of colleges affiliated to the Indian Universities is given as 176, of which 161 are Arts Colleges, three Law Colleges (including the Law School in Bombay), four Medical, three Engineering, one Oriental, one Agricultural, and three Teachers' Colleges. All colleges, whether under Government or private management, are inspected by the Universities. Colleges receive financial aid from public funds, both provincial and Imperial. Under the Universities Act the Universities are empowered to make regulations about the residence of college students. The rule now is that students who do not reside with parent or guardian must reside either in a boarding house under supervision or in an approved lodging house. The result has been a larger provision of college residential buildings. The hostel system is definitely encouraged by Government and in the latest Resolution (Feb. 1913) Government express the desire to see the hostel system extended to all colleges and secondary schools. The number of students in Arts Colleges in 1907 was 18,001.

### Schools.

Government policy with regard to schools has been to provide a small number of institutions which are to be regarded as models for private enterprise. At the same time they insist on a careful inspection of all schools, whether they are run by municipalities or local boards, by private individuals or by missionary or other societies. Private enterprise is encouraged by an extensive system of grants-in-aid, which are dependent on the efficiency of the school and its expenditure on teachers and general equipment.

### Secondary Schools.

There is some difficulty in the classification of schools, secondary and primary. Here the Fifth Quinquennial Review is followed as issuing from the Director General of Education. Secondary schools are divided into *English* and *Vernacular* in the first place. In the former English is a subject of instruction in the lower part and the medium of instruction in the upper part of the school. In the latter English is not taught in any way. In the second place these schools are divided into *high* and *middle* schools. In the former instruction in its highest branches leads to the standard of matriculation for a University;

in the latter instruction is carried to a standard within three years of that in high schools. Thus there are four kinds of schools, *English*, *High* and *Middle*, and *Vernacular*, *High* and *Middle*. Of these the first two are often called *Anglo-Vernacular* as they combine instruction through the medium of the vernacular with instruction through the medium of English. But as there are so small a number of vernacular high schools that they are hardly worth including in a classification, and further as the vernacular middle schools are simply the highest stage of vernacular education and should therefore be included in the primary school system, the Review regards the distinction between *English High* and *English Middle* schools as a satisfactory classification. The distinction between these two is slight. "A middle school in the words of the Review, "is nothing more than a high school with two or three top classes cut off." Secondary schools in 1907 numbered 3,285 with 473,130 pupils. They are regulated both by Government and by the Universities. There are now two examinations which a boy may take at the end of his school career.—(1) The Matriculation examination, (2) the School Final. In order to prevent the evils arising from setting a University examination as a test for a school education, Government now insist on the School Final as a test for certain professions and posts in Government Service. The latest Government Resolution lays particular stress on this point.

### Primary Schools.

Here again there is a difficulty of classification owing to the different systems prevailing in the different provinces. However they are divided generally according to grade into lower primary and upper primary. Middle vernacular schools, classed usually among secondary schools, are really only superior primary schools and bear little relation to the systems prevailing in secondary schools. Primary schools, as the Review points out, have been defined as the education of the masses through the vernacular. If the medium of instruction be taken as the differentiation, then clearly middle vernacular schools ought to be classed as primary. In 1907 the number of these schools was 102,947. In the Government Resolution of Feb. 1913 is found the following statement: "It is the desire and hope of the Government of India to see in the not distant future some 91,000 primary public schools added to the 100,000 which already existed for boys and to double the 4½ millions of pupils who now receive instruction in them." Middle vernacular schools in 1907 numbered 2,039 with 184,132 pupils.

### Primary to Anglo-Vernacular.

The transition from Primary to Anglo-Vernacular schools, that is, from primary to secondary education, is comparable to the transition from a Board school in England to a secondary school under the authority of a Municipality or County Council. But there is a difficulty owing to the different systems prevailing in different Presidencies. Nevertheless in all provinces a boy may begin in a vernacular primary school and pass from it to a secondary school. According to the Quinquennial Review, "in Bombay all children

Statement of Educational Progress in the UNITED PROVINCES.

	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.
Area in square miles .. .. .	107,164	No change.	No change.	No change.	107,164	107,267
Population .. . { Male .. .. .	24,616,942	No change.	No change.	No change.	24,628,344	24,641,881
.. . { Female .. .. .	23,074,840	No change.	No change.	No change.	22,565,048	22,540,216
Total Population .. .. .	47,691,782	No change.	No change.	No change.	47,193,392	47,182,044
<i>Public Institutions for Males.</i>						
Number of arts colleges .. .. .	25	23	24	31	31	32
Number of high schools .. .. .	108	104	108	112	113	115
Number of primary schools .. .. .	9,545	9,717	9,598	9,267	9,067	9,258
<i>Male Scholars in Public Institutions.</i>						
In arts colleges .. .. .	3,030	3,424	3,519	4,150	4,180	4,602
In high schools .. .. .	24,320	26,470	28,647	32,065	33,192	34,257
In primary schools .. .. .	400,993	447,726	450,369	436,675	432,497	470,953
Percentage of male scholars in public institutions to male population of school-going age.	13.6	14.6	14.6	14.6	14.4	15.5
<i>Public Institutions for Females.</i>						
Number of arts colleges .. .. .	4	4	4	4	4	5
Number of high schools .. .. .	22	22	22	23	20	20
Number of primary schools .. .. .	767	850	938	936	941	957
<i>Female Scholars in Public Institutions.</i>						
In arts colleges .. .. .	38	42	38	45	51	54
In high schools .. .. .	1,799	1,838	1,827	1,960	1,824	1,804
In primary schools .. .. .	30,973	38,968	39,316	36,017	37,865	41,340
Percentage of female scholars in public institutions to female population of school-going age.	1.0	1.2	1.3	1.2	1.3	1.4
TOTAL SCHOLARS in public institutions. { Male .. .. .	501,740	537,633	539,414	533,175	530,841	573,194
.. .. . { Female .. .. .	35,152	43,166	44,319	41,529	43,066	48,394
Total .. .. .	536,897	580,799	583,733	574,704	573,407	621,588
TOTAL SCHOLARS (both male and female) in all institutions.	606,174	654,927	653,348	647,381	645,787	712,000
<i>Expenditure (in thousands of rupees).</i>						
From provincial revenues .. .. .	22.59	18.44	21.76	20.45	31.33	37.50
From local funds .. .. .	24.72	26.81	30.25	27.69	24.74	26.54
From municipal funds .. .. .	1.97	2.36	2.81	3.01	3.17	3.54
Total expenditure from public funds .. .. .	49.28	47.61	54.82	60.15	59.24	67.58
From fees .. .. .	13.51	14.04	15.03	17.32	18.99	20.50
From other sources .. .. .	12.11	12.11	14.67	13.76	15.56	18.55
GRAND TOTAL OF EXPENDITURE .. .. .	74.90	73.76	84.52	93.23	95.39	107.93

must begin in the vernacular schools before proceeding to the secondary schools; in other provinces children *may* do so." (The Italics are ours). "The point at which the teaching of English is begun in the secondary schools is usually the highest point in the secondary school to which children from vernacular schools can be drafted; but in the United Provinces and the Punjab there are special arrangements made to facilitate the transition from the vernacular school system to the secondary school system of children who have pursued the vernacular school course to a higher point than this." (p. 97). It may be useful to describe the actual procedure in one Presidency. In Bombay, before proceeding to an Anglo-vernacular school a boy must have passed standard IV of a primary school and a girl standard III. The curriculum of the first three standards of an Anglo-vernacular school is very similar to that of the last three standards of a vernacular school (Standards V, VI and VII)—except that in the Anglo-Vernacular school English is added as a subject, though not used in those standards as the medium of instruction.

### Rural Schools.

In the provinces of Bombay, Bengal, the Punjab and the Central Provinces a distinction is drawn between *rural* and *urban* primary schools. The curriculum differs according to this distinction. In the Central Provinces the distinction was, up to the time of the publication of the last Review, one of time mainly, to allow the boys to spend half their time in agricultural work. The object of rural schools is not so much to teach agriculture as to train the minds of prospective agriculturists in an elementary way. In 1905 an attempt was made in Bombay to introduce agricultural text-books, the effect of which may only have been to destroy the faith of the boys in their father's primitive methods without having any appreciable influence on the improvement of agricultural practices. About a year ago a meeting of educational inspectors decided against this experiment. The whole question of remodelling the rural school course has been reconsidered, and in Bombay at least that and the ordinary primary course have been brought closer together. A boy who starts in a rural school can now complete the whole primary course in the same time as a boy who starts in an urban school. The idea is that boys educated in rural schools should not be put at a disadvantage. At the same time—and this is important—an attempt has been made to make rural education, however elementary, form a system of elementary education which should be complete in itself. Hence the differences between rural education and ordinary primary education are unimportant and indefinite in Bombay at least. The last Government Resolution declares it to be "not practicable at present in most parts of India to draw any great distinction between the curricula of rural and of urban primary schools," but in the latter class of schools there is special scope for practical teaching of geography, school excursions, etc., and the nature study should vary with the environment and some other form of simple knowledge of the locality might advantageously

be substituted for the study of the village map. As competent teachers become available a greater differentiation in the courses will be possible." Such differentiation has long been found a perplexing problem, and it may be doubted whether with wisdom any but indefinite differences can be introduced.

### Professional and Technical Education.

Industrial schools are to be found dotted about India, some maintained by Government, others by municipalities or local boards and others by private bodies. One of the most important institutions of this type is the Victoria Jubilee Technical Institute in Bombay. There is also the well-known Thomason College of Engineering at Roorkee, the College of Science at Poona, and the Sibpur College in Bengal. There are Schools of Art in the larger towns of India, where not only architecture and the fine arts are studied but also practical crafts like pottery and iron-work. There is also a school of Forestry at Dehra Dun in the north of India. Besides these there are many medical schools and colleges which prepare students for the medical degrees of the various Universities and of which the Grant Medical College in Bombay may be taken as a good example. There are agricultural colleges, the most important of which is the Pusa Agricultural College and Research Institute, which trains experts in specialised branches of agricultural science, such as agricultural chemistry, economic botany, mycology and entomology. Finally we may mention the Indian Institute of Science at Bangalore, the product of generous donations by the Tata family.

### Colleges for Teachers.

There are training colleges for secondary teachers in various parts of India, and what are called in some cases Training Colleges, in others normal schools, for the training of vernacular teachers. As there has been considerable dissatisfaction on account of the defective qualities and pay of teachers in schools, Government are now awakening to the importance of paying more careful attention to these institutions and the last Resolution provides for a better scheme of pay for teachers.

### Education of Girls.

Hitherto little attention has been paid to this important branch of education. Even in the latest Resolution nothing is definitely proposed though certain lines are laid down for guidance of enterprise in this direction. However there do exist schools and colleges for girls, while a number of the female sex are educated at institutions common to both sexes. Arts Colleges, Medical Colleges and the like admit both male and female students, and a small percentage of women attend them. In those Presidency Towns, however, where there are no colleges specially for women, it seems to be generally recognised that there ought to be, particularly when one remembers how important it is to bring the influential class of women and mothers round to some sympathy with modern thought and ideals. It may be presumed that Government will pay very limited attention to this side of education until Indians themselves demand such a move. Most Indians object to invasions on their family life and take a

Statement of Educational Progress in the PUNJAB.

	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.
Area in square miles .. .. .	97,209	No change.	97,272	No change.	97,213	No change.
Population .. { Male .. .. .	10,942,705	10	10	10	10,952,067	
.. { Female .. .. .	9,387,634	94	94	98	8,982,889	
Total Population .. .. .	20,330,339	3,343	3,408	3,345	19,974,956	
<i>Public Institutions for males.</i>						
Number of arts colleges .. .. .	1,598	1,725	1,860	2,022	2,270	2,653
Number of high schools* .. .. .	30,781	32,012	34,971	40,865	44,893	47,740
Number of primary schools .. .. .	141,345	146,290	149,542	157,946	164,081	179,410
<i>Male Scholars in Public Institutions.</i>						
In arts colleges .. .. .	12-8	13-3	13-8	14-9	15-6	16-9
In high schools .. .. .						
In primary schools .. .. .						
Percentage of male scholars in public institutions to male population of school-going age.						
<i>Public Institutions for Females.</i>						
Number of arts colleges .. .. .	12	11	12	12	15	16
Number of high schools .. .. .	542	586	620	602	599	637
Number of primary schools .. .. .						
<i>Female Scholars in Public Institutions.</i>						
In arts colleges .. .. .	957	929	944	1,007	1,244	1,605
In high schools .. .. .	20,201	21,615	22,672	26,309	26,174	29,268
Percentage of female scholars in public institutions to female population of school-going age.	1-7	1-8	1-9	2-2	2-4	2-7
TOTAL SCHOLARS in public institutions, { Male .. .. .	210,853	218,592	226,502	245,722	257,432	279,492
.. { Female .. .. .	24,042	25,679	27,282	30,995	32,186	36,675
Total .. .. .	234,895	244,271	253,784	276,717	289,618	316,167
TOTAL SCHOLARS (both male and female) in all institutions.	300,237	302,863	302,376	329,466	346,940	381,113
<i>Expenditure (in thousands of rupees).</i>						
From provincial revenues .. .. .	19,69	20,78	17,66	18,61	18,63	22,79
From local funds .. .. .	9,38	11,48	12,43	12,39	12,31	12,44
From municipal Funds .. .. .	2,85	2,72	3,06	3,43	4,05	3,53
Total Expenditure from public funds .. .. .	32,12	35,02	33,15	34,43	34,99	38,76
From fees .. .. .	11,42	11,23	11,98	13,34	15,20	17,75
From other sources .. .. .	8,43	10,11	10,46	10,66	12,14	12,75
GRAND TOTAL OF EXPENDITURE .. .. .	51,97	56,36	55,59	58,43	60,37	68,55

\* Include also vernacular high schools.

different attitude to women from that of Western races. Still there are schools for girls and female inspectors employed by Government.

#### European Schools.

There are schools for Europeans and Eurasians in India and they are inspected by Government inspectors specially appointed for the control of European schools and for the allocation of grants to schools under their sphere of influence. The education of the domiciled communities has been found a singularly perplexing problem, and in 1912 a special conference was summoned to consider the matter. The difficulty is that they are a thing apart from the general system of education devoted to Indians proper.

#### Educational Services.

These are divided into (a) the Indian Educational Service, (b) the Provincial Educational Service, (c) the Subordinate Educational Service.

(a) Indian Educational Service. The Indian Educational Service is comprised of distinguished graduates of Universities of the United Kingdom, chiefly from Oxford and Cambridge. At the head of the Educational Department in each Presidency is the Director of Public Instruction, who is a member of the Service drawn from one of its branches and *ex officio* a member of the Legislative Council of his Presidency. Under him are Educational Officers in three branches, (a) Inspectors, (b) Principals and Professors of colleges, (c) Headmasters of High Schools. Under the present system it is still possible for an English graduate sent out from home to start in one branch of the service and pass from one to another at the will of Government. At present also a Headmaster of a High School is brought out under less satisfactory conditions than Inspectors and professors. All start at the pay of Rs. 500 per mensem with an annual increment of Rs. 50 per mensem. But Headmasters stop at the pay of Rs. 750 per mensem, while other members of the service go up to Rs. 1,000 per mensem, the Director of Public Instruction being put on to the salary of Rs. 2,500 per mensem. On the other hand, headmasters as a rule are transferred to the Inspectorate before they reach the maximum of Rs. 750, and are then put under the same conditions as the rest of the service. A small number of personal allowances was arranged in 1906, when the service was re-organised and received its title. There are lower allowances of Rs. 200 to Rs. 250, higher allowances of Rs. 250 to Rs. 500, and

an allowance of Rs. 100 after fifteen years of approved service to those who do not get any of the other allowances. Except for the Director of Public Instruction, the limit of the prospect of a member of the Indian Educational Service is Rs. 1,500 a month, the average prospects being considerably less. There is no short service custom. Schemes are on foot to improve the prospects of the service. Hitherto this service which is in reality one of the most important in the country has not been rightly estimated, though its members are as a rule men of more real culture than members of the Indian Civil. Hence the great difficulty of recruitment. The number of posts in this service in 1907 throughout India was 157. Additions have been made since then, but it is clear that the Service is understaffed, if one considers the range and importance of its work. Hitherto higher educational work has been little appreciated in India, particularly by Englishmen. Now-a-days much is said of its importance, but little done for those who carry it out.

At the head of all Educational departments in India, at the seat of Government, is the Member for Education who sits in the Viceroy's Executive Council.

(b) Provincial Educational Service.—In this service also are found principals and professors of colleges, headmasters and inspectors of schools, and, in addition, translators to Government and members engaged in other exceptional posts. This service is composed of Indians and recruited in India, the pay scheme being arranged on a much lower scale than that of the Indian Service in accordance with the qualifications and the cheaper rates of living of natives of India. The maximum pay is Rs. 700, the minimum, pay Rs. 200. There is a general division between two branches, collegiate and general. The number of posts in 1907 was 265.

(c) Subordinate Educational Service.—The majority of this service are headmasters (a few), assistant deputy inspectors and all the assistant masters in Government high and middle schools. In Bengal a number of poorly paid teachers have been converted into a "lower subordinate service." The pay and prospects of this service are not good, and much complaint is made of the inferior nature of the teaching in schools run by its members. In 1907 the figures for this service stood at 6025. The maximum pay of this service is somewhere about Rs. 400. The minimum pay used to be Rs. 30, but is now Rs. 40 per mensem.

#### STATISTICAL RESULTS.

The statistical table of educational progress in British India published in March 1913 gives the following results:—

The grand total of pupils in all institutions (including private institutions) has risen by 435,139 to 6,780,721. All provinces show an increase. The increases in the United Provinces, the Punjab, Eastern Bengal and Assam and the North-West Frontier Province amount to over 9 per cent. of the total figures for 1910-11. The smallest increases are in Burma and Coorg. The increase in pupils during the quinquennium ending 1907 was 866,732; during the quinquennium ending 1912 it was 1,392,089.

The percentage of those at school to those of school-going age (reckoned at 15 per cent. of the population) has risen in the case of boys to 26·8, in that of girls to 4·7, in that of both to 16·0. The percentage of both boys and girls in public and private institutions together has risen from 16·9 to 17·7, and the percentage to the whole population from 2·5 to 2·6. Bombay, Bengal and Eastern Bengal and Assam show over 33 per cent. of boys of school-going age at school in public institutions; Madras over 30 per cent. and Coorg nearly 30 per cent.; Burma and the Central Provinces over 20 per cent.; in the United Provinces, the Punjab and

## Statement of Educational Progress in BURMA.

	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.
Area in square miles .. .. .	219,894	No change.	236,738	{ No change. }	236,738	230,839
Population { Male .. .. .	5,335,484	5,342,033			6,144,301	6,133,494
.. { Female .. .. .	5,142,024	5,148,591			5,913,604	5,981,722
Total Population .. .. .	10,477,508	10,490,624			12,057,905	12,115,217
<i>Public Institutions for Males.</i>						
Number of arts colleges .. .. .	2	2	2	2	2	2
Number of high schools .. .. .	26	31	31	35	39	36
Number of primary schools .. .. .	4,950	5,113	5,261	5,163	4,895	4,764
<i>Male Scholars in Public Institutions.</i>						
In arts colleges .. .. .	133	133	148	232	261	302
In high schools .. .. .	8,400	9,366	8,893	9,599	10,568	10,034
In primary schools .. .. .	124,427	130,657	136,657	131,386	124,377	125,552
Percentage of male scholars in public institutions .. .. .	21.0	22.9	24.1	24.1	20.4	20.9
<i>Female Population of school-going age.</i>						
Number of arts colleges .. .. .	9	8	9	9	11	11
Number of high schools .. .. .	473	532	616	619	553	552
Number of primary schools .. .. .						
<i>Female Scholars in Public Institutions.</i>						
In arts colleges .. .. .	2	5	7	12	17	22
In high schools .. .. .	1,504	1,862	1,683	1,694	1,874	2,135
In primary schools .. .. .	47,230	52,613	53,606	53,779	53,291	55,894
Percentage of female scholars in public institutions .. .. .	7.6	8.6	9.1	9.1	8.1	8.5
<i>Male .. .. .</i>						
TOTAL SCHOLARS in public institutions. {	163,463	183,180	192,628	192,862	188,129	194,401
<i>Female .. .. .</i>						
TOTAL SCHOLARS (both male and female) in all institutions.	58,665	66,220	70,358	70,106	71,032	75,909
From local funds .. .. .	227,125	249,400	262,986	262,968	259,161	270,310
From municipal funds .. .. .	398,598	423,819	433,211	433,973	429,992	445,255
Total Expenditure from public funds .. .. .	16.10	18.79	17.45	17.03	16.71	18.98
From fees .. .. .	3.27	3.14	3.71	4.07	4.08	4.22
From other sources .. .. .	9.71	9.71	10.32	13.77	14.53	15.09
From other sources .. .. .	3.64	4.37	4.48	4.44	4.83	5.40
GRAND TOTAL OF EXPENDITURE .. .. .	34.87	39.32	39.31	42.71	43.63	47.37

\* Include also vernacular high schools.



the North-West Frontier Province, the percentages range from 13 to 17. The highest figures for girls are 16 per cent. in Coorg and 8·5 per cent. in Burma. The United Provinces is last with 1·4 per cent.

There has been an appreciable increase in the number of pupils of primary schools. In 1910-11 the increase was 68,583, or 1·5 per cent. of the previous year's figures. During the year under review it was 382,252, or 7·8 per cent. In collegiate and higher institutions, the increase has been less marked than in the previous year, and amounts to 28,687. The figures for higher institutions are as follows:—

	Male.	Female.	Total.
In colleges ..	35,915	369	36,284
In high schools, ..	390,857	16,908	407,765
In middle schools, ..	470,725	45,880	516,605

There has been a decline in middle school pupils in Madras.

In primary schools the figures now stand:—

Male .. .. .	4,202,631
Female .. .. .	785,511

There has been an increase in every province.

The number of those under training for the profession of teaching has risen by nearly 800, and now stands at 13,351. The number of those who qualified indicates a slight falling-off and was 4,282.

Technical school pupils number 12,064, an increase of 1,529.

The number in schools for Europeans and the domiciled community has increased by 876 and now stands at 33,720.

The increase in Muhammadan pupils has been noteworthy, amounting to 100,597. In secondary schools and colleges the increase has been 15,973. In elementary schools 73,266. The total in institutions of the former kind is now 174,401, in those of the latter, 1,022,768. The remainder of the increase and of the totals are in institutions of other kinds, the complete total being 1,316,998 pupils, of whom 583,393 were in the province of Eastern Bengal and Assam.

#### Expenditure.

The total expenditure was Rs. 7,85,93,000, an increase of Rs. 67,25,000 over that of the preceding year. To this increase public funds have contributed Rs. 34,83,000 against an increase under this head of Rs. 9,30,000 in the year before. Of the total, roughly 405 lakhs are now met from public funds (against 370 lakhs in the preceding year), viz., 270 lakhs (against 242 lakhs) from provincial, 105 from

district and 30 from municipal. (To the last item the Bombay Presidency contributed one-third.) Of the 380 lakhs from private sources, fees contributed 219 lakhs.

Among the larger provinces, the highest expenditure is in Bengal, 172 lakhs; the lowest in the Central Provinces, 32½ lakhs. Save in Madras, Bengal and Eastern Bengal and Assam, public funds contributed more than private.

The average annual cost of educating a pupil has slightly risen from Rs. 12·55 to Rs. 12·8. But the expenditure includes that indirectly incurred, as on buildings, etc.

#### Recent Developments.

The main developments of the last and of immediately preceding years have been described in the resolution which appeared in the *Gazette of India* published on the 22nd February 1913, which also lays down the policy of the Government of India. The year witnessed the assertion at the Imperial Durbar by command of His Most Gracious Majesty the King-Emperor of the predominant claims of educational advancement, the announcement of a recurring Imperial grant of 50 lakhs for the promotion of truly popular education, and the high expression of his hopes and wishes for the expansion and improvement of education delivered by His Majesty the King-Emperor in graciously receiving an address presented by the Calcutta University. In addition to the recurring grant of 50 lakhs a recurring grant of 10 lakhs was sanctioned for university and higher education, and a non-recurring grant of 65 lakhs was also made. There has been expansion in expenditure accompanied by an increase of those under instruction.

Other features of the year have been the collection of materials for the preparation of extensive schemes for the spread of elementary education, and, in certain provinces, for the improvement of secondary education; the growth of new ideas regarding university teaching, which has resulted in the proposal for a teaching and residential university at Dacca; the generous gifts of Sir T. N. Palit and Dr. Rash Behari Ghose to the University of Calcutta; the creation of a department of industries at Madras as a portion of the scheme of industrial training and development; the sanctioning of an industrial scheme for the Central Provinces; an inquiry carried out by Colonel Atkinson and Mr. Dawson into the question of bringing technical institutions into closer touch with the employers of labour; the institution of proposals for an Oriental Research Institute; and the conference held in July 1912 on the education of the domiciled community.

(For the proposed Hindu and Mahomedan Universities, see pages 370-371.)

Statement of Educational Progress in CENTRAL PROVINCES and BERAR.

	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.
Area in square miles .. .. .	119,980	130,174	No change.	No change.	130,174	117,935
Population .. { Male .. .. .	6,570,761	6,793,832	No change.	No change.	7,764,777	7,766,007
.. { Female .. .. .	6,748,758	6,965,191	No change.	No change.	7,892,712	7,893,993
Total Population .. .. .	13,319,519	13,759,023	No change.	No change.	15,597,489	15,660,000
<i>Public Institutions for Males.</i>						
Number of arts colleges .. .. .	3	3	3	3	3	4
Number of high schools .. .. .	30	31	34	35	35	35
Number of primary schools .. .. .	2,645	2,777	2,892	3,019	3,094	3,195
<i>Male Scholars in Public Institutions.</i>						
In arts colleges .. .. .	274	381	457	479	514	608
In high schools .. .. .	2,027	2,305	2,657	3,059	3,236	3,102
In primary schools .. .. .	172,496	127,387	109,326	212,857	216,750	228,255
Percentage of male scholars in public institutions to male population of school-going age.	22.1	23.2	25.4	26.2	23.1	24.2
<i>Public Institutions for Females.</i>						
Number of arts colleges .. .. .	..	..	..	..	..	..
Number of high schools .. .. .	4	4	4	4	4	5
Number of primary schools .. .. .	257	261	287	301	301	309
<i>Female Scholars in Public Institutions.</i>						
In arts colleges .. .. .	..	..	..	..	..	..
In high schools .. .. .	34	26	20	24	23	28
In primary schools .. .. .	17,331	20,801	23,230	26,669	26,033	27,048
Percentage of female scholars in public institutions to female population of school-going age.	1.9	2.2	2.5	2.8	2.4	2.6
TOTAL SCHOLARS in public institutions { Male .. .. .	217,550	234,859	250,602	266,850	269,062	282,257
.. { Female .. .. .	19,550	23,156	25,331	29,373	28,432	30,729
TOTAL SCHOLARS (both male and female) in all institutions .. .. .	237,100	258,015	276,133	296,223	297,511	312,986
.. { Male .. .. .	217,550	234,859	250,602	266,850	269,062	282,257
.. { Female .. .. .	19,550	23,156	25,331	29,373	28,432	30,729
<i>Expenditure (in thousands of rupees).</i>						
From provincial revenues .. .. .	8.33	8.89	9.98	10.92	11.48	10.84
From local funds .. .. .	7.88	9.19	11.74	10.65	11.05	12.08
From municipal funds .. .. .	1.19	1.65	1.53	1.59	1.88	2.93
Total Expenditure from public funds .. .. .	17.40	19.73	23.30	23.16	24.41	25.61
From fees .. .. .	1.59	1.65	1.79	1.95	2.29	2.84
From other sources .. .. .	3.49	3.38	3.87	3.81	4.15	4.16
GRAND TOTAL OF EXPENDITURE .. .. .	24.48	24.76	28.96	28.92	30.85	32.65

## Laws and the Administration of Justice.

The indigenous law of India is personal and divisible with reference to the two great classes of the population, Hindu and Mahomedan. Both systems claim divine origin and are inextricably interwoven with religion, and each exists in combination with a law based on custom. At first the tendency of the English was to make their law public and territorial, and on the establishment of the Supreme Court at Calcutta in 1773 and the advent of English lawyers as judges, they proceeded to apply it to Europeans and Indians alike. This error was rectified by the Declaratory Act of 1780, by which Parliament declared that as against a Hindu the Hindu law and usage, and as against a Mahomedan the laws and customs of the Shastras and the Koran have been in some cases altered and relaxed. Instances can be found in the Bengal Sati Regulation Act of 1829; the Indian Slavery Act, 1833; the Caste Disabilities Removal Act of 1850; the Hindu Widows' Remarriage Act, 1856; and other Acts and Codes. To quote the Imperial Gazetteer, "A certain number of the older English statutes and the English common law are to a limited extent still in force in the Presidency Towns as applicable to Europeans, while much of the old Hindu and Mahomedan law is everywhere personal to their native fellow subjects; but apart from these, and from the customary law, which is as far as possible recognised by the Courts, the law of British India is the creation of statutory enactments made for it either at Westminster or by the authorities in India to whom the necessary law-giving functions have from time to time been delegated."

### Codification.

Before the transfer of India to the Crown the law was in a state of great confusion. Sir Thomas Canningham described it as "hopelessly unwieldy, entangled and confusing." The first steps toward general codification were taken in 1833, when a Commission was appointed, of which Lord Macaulay was the moving spirit, to prepare a penal code. Twenty-two years elapsed before it became law, during which period it underwent revision from his successors in the Law Membership, and especially by Sir Barnes Peacock, the last Chief Justice of the Supreme Court of Calcutta. The Penal Code, which became law in 1860, was followed in 1861 by a Code of Criminal Procedure. Substantially the whole criminal law of British India is contained in these two Codes. One of the most eminent lawyers who ever came to India, Sir James Stephen, said "The Indian penal code may be described as the criminal law of England freed from all technicalities and superfluities, systematically arranged and modified in some few particulars (they are surprisingly few) to suit the circumstances of British India. It is practically impossible to misunderstand the code." The rules of Civil Procedure have been embodied in the Code of Civil Procedure. The Indian Penal Code has from time to time been amended. The Code of Civil Procedure was remodelled in 1908 and the Code of Criminal Procedure in 1898. These Codes are now in force.

### European British Subjects.

Whilst the substantive criminal law is the same for all classes, certain distinctions of procedure have always been maintained in regard to criminal charges against European British subjects. Until 1872 European British subjects could only be tried or punished by one of the High Courts. It was then enacted that European British subjects should be liable to be tried for any offences by magistrates of the highest class, who were also justices of the peace, and by judges of the Sessions Courts; but it was necessary in both cases that the magistrate or judge should himself be a European British subject. In 1883 the Government of India announced that they had decided "to settle the question of jurisdiction over European subjects in such a way as to remove from the code at once and completely every judicial disqualification which is based merely on race distinctions." This decision, embodied in the Ilbert Bill, aroused a storm of indignation which is still remembered. The controversy ended in a compromise which is thus summarised by Sir John Strachey ("India"). "The controversy ended which the virtual, though not avowed, abandonment of the measure proposed by the Government. Act III of 1884, by which the law previously in force was amended, cannot be said to have diminished the privileges of European British subjects charged with offences, and it left their position as exceptional as before. The general disqualification of native judges and magistrates remains; but if a native of India be appointed to the post of district magistrate or sessions judge, his powers in regard to jurisdiction over European British subjects are the same as those of an Englishman holding the same office. This provision however is subject to the condition that every European British subject brought for trial before the district magistrate or sessions judge has the right, however trivial be the charge, to claim to be tried by a jury of which not less than half the number shall be Europeans or Americans. . . . Whilst this change was made in the powers of district magistrates, the law in regard to other magistrates remained unaltered." Since 1836 no distinctions of race have been recognised in the civil courts throughout India.

### High Courts.

The highest legal tribunals in India are the High Courts of Judicature. These were constituted by the Indian High Courts Act of 1861 for Bengal, Bombay and Madras, and later for the United Provinces, superseding the old supreme and Sudder Courts. The Judges are appointed by the Crown; they hold office during the pleasure of the Sovereign; at least one-third of their number are barristers, one-third are recruited from the judicial branch of the Indian Civil Service, the remaining places being available for the appointment of Indian lawyers. Trial by jury is the rule in original criminal cases before the High Courts, but juries are never employed in civil suits in India.

For other parts of India High Courts have been formed under other names, the chief difference being that they derive their authority

from the Government of India, not from Parliament. In the Punjab and Burma there are Chief Courts, with three or more judges; in the other provinces the chief appellate authority is an officer called the Judicial Commissioner. In Sind the Judicial Commissioner is termed Judge of the Sudder Court and has two colleagues.

The High Courts are the Courts of appeal from the superior courts in the districts, criminal and civil, and their decisions are final, except in cases in which an appeal lies to His Majesty in Council and is heard by the Judicial Committee of the Privy Council in England. The High Courts exercise supervision over all the subordinate courts. Returns are regularly sent to them at short intervals and the High Courts are able, by examining the returns, by sending for proceedings, and by calling for explanations, as well as from the cases that come before them in appeal, to keep themselves to some extent acquainted with the manner in which the courts generally are discharging their duties.

#### Lower Courts.

The Code of Criminal Procedure provides for the constitution of inferior criminal courts styled courts of session and courts of magistrates. Every province, outside the Presidency towns, is divided into sessions divisions, consisting of one or more districts, and every sessions division has a court of session and a sessions judge, with assistance if need be. These stationary sessions courts take the place of the English Assizes, and are competent to try all accused persons duly committed, and to inflict any punishment authorised by law, but sentences of death are subject to confirmation by the highest court of criminal appeal in the province. Magistrates' courts are of three classes with descending powers. Provision is made and largely utilised in the towns, for the appointment of honorary magistrates; in the Presidency towns Presidency magistrates deal with magisterial cases and benches of Justices of the Peace or honorary magistrates dispose of the less important cases.

Trials before courts of session are either with assessors or juries. Assessors assist, but do not bind the judge by their opinions; on juries the opinion of the majority prevails if accepted by the presiding Judge. The Indian law allows considerable latitude of appeal. The prerogative of mercy is exercised by the Governor-General-in-Council and the Local Government concerned without prejudice to the superior power of the Crown.

The constitution and jurisdiction of the inferior civil courts varies. Broadly speaking, one district and sessions Judge is appointed for each district: as District Judge he presides in its principal civil court of original jurisdiction; his functions as Sessions Judge have been described. For these posts members of the Indian Civil Service are mainly selected though some appointments are made from the Provincial Service. Next come the Subordinate Judges and Munsifs, the extent of whose original jurisdiction varies in different parts of India. The civil courts below the grade of District Judge, are almost invariably presided over by Indians. There are in addition a number of

Courts of Small Causes, with jurisdiction to try money suits up to Rs. 500. In the Presidency Towns, where the Chartered High Courts have original jurisdiction, Small Cause Courts dispose of money suits up to Rs. 2,000. As Insolvency Courts the chartered High Courts of Calcutta, Bombay and Madras have jurisdiction in the Presidency towns. In the mofussil similar powers were conferred on the District Courts by the Insolvency Act of 1906.

Coroners are appointed only for the Presidency Towns of Calcutta and Bombay. Elsewhere their duties are discharged by the ordinary staff of magistrates and police officers aided by jurors.

#### Legal Practitioners.

Legal practitioners in India are divided into Barristers-at-Law, Advocates of the High Court, Vakils and Attorneys (Solicitors) of High Courts, and Pleaders, Mukhtars and revenue agents. Barristers and Advocates are admitted by each High Court to practise in it and its subordinate courts; and they alone are admitted to practise on the original side of some of the chartered High Courts. Vakils are persons duly qualified who are admitted to practise on the appellate side of the chartered High Courts and in the Courts subordinate to the High Courts. Attorneys are required to qualify before admission to practise in much the same way as in England. The rule that a solicitor must instruct counsel prevails only on the original side of certain of the High Courts. Pleaders practise in the subordinate courts in accordance with rules framed by the High Courts.

#### Law Officers.

The Government of India has its own law colleague in the Legal Member of Council. All Government measures are drafted in this department. Outside the Council the principal law officer of the Government is the Advocate-General of Bengal, appointed by the Crown, is the leader of the local Bar, and is always nominated a member of the Provincial Legislative Council. In Calcutta he is assisted by the Standing Counsel and the Government Solicitor. There are Advocates-General and Government Solicitors for Bombay and Madras, and in Bombay there is attached to the Secretariat a Legal Remembrancer and an Assistant Legal Remembrancer, drawn from the Judicial Branch of the Indian Civil Service. The Government of Bengal consults the Bengal Advocate-General, the Standing Counsel and the Government Solicitor, and has besides a Legal Remembrancer (a Civil Servant) and a Deputy Legal Remembrancer (a practising barrister); the United Provinces are equipped with a civilian Legal Remembrancer and professional lawyers as Government Advocate and Assistant Government Advocate; the Punjab has a Legal Remembrancer, Government Advocate and a Junior Government Advocate; and Burma a Government Advocate, besides a Secretary to the Local Legislative Council.

Sheriffs are attached to the High Courts of Calcutta, Madras and Bombay. They are appointed by Government, selected from non-officials of standing, the detailed work being done by deputy sheriffs, who are officers of the Court.

**Legislative Power.**

The supreme power of Parliament to legislate for the whole of India cannot be questioned. In practice, however, this power is little used, there being a majority of officials on the Imperial Legislative Council—a majority deliberately reserved in the India Councils Act of 1909—the Secretary of State is able to impose his will on the Government of India and to secure the passage of any measure he may frame, regardless of the opinion of the Indian authorities. Legislative Councils have been established both for the whole of India and for the principal provinces. Their constitution and

functions are fully described in detailing the powers of the Imperial and Provincial Councils (q. v.). To meet emergencies the Governor-General is vested with the power of issuing ordinances, having the same force as Acts of the Legislature, but they can remain in force for only six months. The power is very little used. The Governor-General-in-Council is also empowered to make regulations, having all the cogency of Acts, for the more backward parts of the country, the object being to bar the operation of the general law and permit the application of certain enactments only.

**Bengal Judicial Department.**

Jenkins, The Hon'ble Sir Lawrence Hugh, Kt., K.C.I.E....	Chief Justice.
Harlington, The Hon'ble Sir Richard, Bart., Bar-at-Law.	Puisne Judge.
Teunou, The Hon'ble Mr. William, I.C.S. ....	Ditto.
Stephens, The Hon'ble Mr. Harry Lushington, Bar-at-Law.	Ditto.
Woodroffe, The Hon'ble Mr. John George, M.A., Bar-at-Law.	Ditto.
Mukharji, The Hon'ble Sir Ashutosh, Kt., C.S.I., M.A., D.L.	Ditto.
Richardson, The Hon'ble Mr. Thomas William, I.C.S., Bar-at-Law.	Ditto.
Holmwood, The Hon'ble Mr. Herbert, I.C.S. ....	Ditto.
Chitty, The Hon'ble Mr. Charles William, Bar-at-Law.	Ditto.
Fletcher, The Hon'ble Mr. Ernest Edward, Bar-at-Law.	Ditto.
Sharif-ud-din, The Hon'ble Mr. Sayid, Bar-at-Law.	Ditto.
Coxe, The Hon'ble Mr. Henry Reynell Holled, I.C.S. ..	Ditto.
Carnuff, The Hon'ble Sir Herbert William Cameron, C.I.E., I.C.S., Bar-at-Law.	Ditto.
Chatarji, The Hon'ble Mr. Digamber, M.A., B.L. ....	Ditto.
Chatarji, The Hon'ble Mr. Nalini Ranjan, M.A., B.L. ..	Ditto.
Beachcroft, The Hon'ble Mr. Charles Porten, I.C.S. ....	Ditto* (Officiating Additional.)
Chaudhuri, The Hon'ble Mr. Ashutosh, Bar-at-Law ..	Ditto. Ditto.
Imam, The Hon'ble Mr. Sayid Hassan, Bar-at-Law ..	Ditto. Ditto.
Chapman, The Hon'ble Mr. Edmund Pelly, I.C.S. ....	Ditto. Ditto.
Kenrick, The Hon'ble Mr. George Harry Blair, K.C., LL.D., Bar-at-Law.	Advocate-General.
Deod Chandra, Bar-at-Law .. .. .	Standing Council.
Charles Henry .. .. .	Government Solicitor.
The Hon'ble Mr. B. B. .. .. .	Officiating Superintendent and Remembrancer of Legal Affairs.
Orr, John Williams, Bar-at-Law .. .. .	Deputy Superintendent and Remembrancer of Legal Affairs.
Ram Charan Mitra .. .. .	Senior Government Pleader.
Hume, J. T. .. .. .	Public Prosecutor, Calcutta.
Hechle, James Herbert .. .. .	Registrar, Keeper of Records, Taxing Officer, Accountant-General, and Sealer, etc., Original Jurisdiction.
Nalini Mohan Chatarji, Bar-at-Law .. .. .	Master and Official Referee.
Remfry, Maurice .. .. .	Deputy Registrar.
Bonnaud, William Augustus, Bar-at-Law .. .. .	Clerk of the Crown for Criminal Sessions.
Cullis, Henry Thoreau, B.A., I. C. S. .. .. .	Registrar and Taxing Officer, Appellate Jurisdiction.
Grey, Charles Edward, Bar-at-Law .. .. .	Officiating Official Trustee and Official Assignee.
Bonnerjee, K. K. Shelly, Bar-at-Law .. .. .	Official Receiver, sub. <i>pro tem</i>
Dobbin, F. K., Bar-at-Law .. .. .	Coroner of Calcutta.
Stewart, F. H. .. .. .	Sheriff.

**Bombay Judicial Department.**

Scott, The Hon'ble Sir Basil, Kt., M.A., Bar-at-Law ..	Chief Justice.
Shah, The Hon'ble Mr. Lalubhai Asharam, M.A. LL., B.	Puisne Judge.
Batchelor, The Hon'ble Mr. Stanley Lockhart, B.A., I.C.S.	Ditto.
Davar, The Hon'ble Sir Dinsha Dhanjibhai, Kt., Bar-at-Law.	Ditto.
Beaman, The Hon'ble Mr. Frank Clement Offley, I.C.S....	Ditto.
Heaton, The Hon'ble Mr. Joseph John, I.C.S. ....	Ditto.
McLeod, The Hon'ble Mr. Norman Cranstoun, B.A., Bar-at-Law.	Ditto.

• **Bombay Judicial Department.—Contd.**

Strangman, Thomas Joseph, B.A., LL.B., Bar-at-Law ..	Advocate-General.
Percival, Philip Edward, B.A., Bar-at-Law ..	Remembrancer of Legal Affairs.
Graham, Lancelot, B.A., I.C.S. ..	Assistant Remembrancer of Legal Affairs.
Nicholson, Eustace Ferrers ..	Government Solicitor and Public Prosecutor.
Slater, John Sanders, B.A., Bar-at-Law ..	Administrator-General and Official Trustee.
Abdeali Muhammad Ali Kaziji, B.A., LL.B., Bar-at-Law ..	Prothonotary, Testamentary and Admiralty Registrar.
Jijibhai Edalji Modi, Bar-at-Law ..	Master and Registrar in Equities and Commissioner for taking Account and Local Investigations, and Taxing Officer.
Chinoy, The Hon'ble Mr. Fazalbhoy ..	Sheriff.
Elliot, Robert Ernest Algernon, I.C.S. ..	Registrar, Appellate Side.
Nasurwanji Dinshahji Gharda, B.A., LL.B. ..	Deputy Registrar and Sealer, Appellate Side.
Chalk, George Frederick ..	Coroner.
COURT OF THE JUDICIAL COMMISSIONER OF THE DISTRICT OF SIND	
Pratt, Edward Millard, I.C.S. ..	Judicial Commissioner.
Crouch, Henry Newton, LL.B., Bar-at-Law ..	Additional Judicial Commissioner.
Hayward, Maurice Henry Weston, LL.B., Bar-at-Law ..	Acting Judicial Commissioner.
Boyd, Charles Clifford, I.C.S. ..	Acting Additional Judicial Commissioner.

**Madras Judicial Department.**

White, The Hon'ble Sir Charles Arnold, Kt., Bar-at-Law.	Chief Justice.
Oldfield, The Hon'ble Mr. Francis Du Pre, I.C.S. ..	Puisne Judge.
Wallis, The Hon'ble Sir John Edward Power, Kt. M.A., Bar-at-Law.	Ditto.
Miller, The Hon'ble Mr. Leslie Creery, I.C.S. ..	Ditto.
Nair, The Hon'ble Sir C. Sankaran, B.A., B.L., C.I.E., Kt.	Ditto.
Abdur Rahim, The Hon'ble Mr. M.A., Bar-at-Law ..	Ditto.
Sundara Aiyar, The Hon'ble Mr. P. R., B.A., B.L. ..	Ditto.
Ayling, The Hon'ble Mr. William Rock, I.C.S. ..	Ditto.
Bakewell, The Hon'ble Mr. James Herbert, LL.B., Bar-at-Law.	Ditto. Temporary (Additional).
Sadashiva Aiyar, The Hon'ble Mr. T., B.A., M.L., Diwan Bahadur.	Ditto. Temporary (Additional).
Spencer, The Hon'ble Mr. Charles Gordon, I.C.S. ..	Ditto. Officiating).
Corbet, Frederick Hugh Mackenzie, Bar-at-Law ..	Advocate-General.
David, William Ontario ..	Government Solicitor.
Napier, Charles F., Bar-at-Law ..	Government Pleader and Public Prosecutor.
Adam, John, M.A., Bar-at-Law ..	Crown Prosecutor.
Grant, P. R., Bar-at-Law ..	Law Reporter.
Odgers, The Hon'ble Mr. C. E., M.A., Bar-at-Law ..	Administrator-General and Official Trustee.
Reilly, Henry D'Arcy Cornelius, I.C.S. ..	Registrar.
Govindas Chatoorbhojadas, Dewan Bahadur ..	Sheriff.

• **Assam Judicial Department.**

Graham, John Fuller ..	Judge, Assam Valley Districts, Gauhati
Stinton, Selby Edwin ..	Officiating District and Sessions Judge, Sylhet and Cachar.
Pankaja Kumar Chatarji, M.A., E.L. ..	Additional District and Sessions Judge, Sylhet and Cachar.

**Burma Judicial Department.**

Fox, The Hon'ble Sir Charles Edmund, Kt., Bar-at-Law.	Chief Judge, Chief Court, Lower Burma.
Hartnoll, The Hon'ble Mr. Henry Sullivan, I.C.S., Bar-at-Law.	Judge.
Ormond, The Hon'ble Mr. Ernest William, B.A., Bar-at-Law.	Judge. (On leave.)
Twomey, The Hon'ble Mr. Daniel Harold Ryan, I.C.S. Bar-at-Law.	Judge. (On leave.)

**Burma Judicial Department—Contd.**

Robinson, The Hon'ble Mr. Sydney Maddock, Bar-at-Law.	Judge. (On leave.)
Parlett, The Hon'ble Mr. Leonard Montague .. ..	Judge. (Officiating.)
Shaw, George Watson, C.S.I., I.C.S. .. ..	Judicial Commissioner, Upper Burma. (On leave.)
Young The Hon'ble Mr. Charles Philip Radford, B.A., Bar-at-Law.	Government Advocate.
Son, Purna Chandra, Bar-at-Law .. ..	Official Assignee and Receiver, Rangoon.
Christopher, S. A., Bar-at-Law .. ..	Government Prosecutor, Rangoon.
Barretto, C. L. .. ..	Government Prosecutor, Moulmein.
Dawson, Laurence, Bar-at-Law .. ..	Government Prosecutor, Pyapon.
Brander, William Browne, M.A., I.C.S. .. ..	Registrar, Chief Court, Lower Burma.
Millar, Edward .. ..	Registrar, Court of Judicial Commissioner, Upper Burma.

**Central Provinces Judicial Department.**

Drake Brockman, H. V., M.A. LL. M., Bar-at-Law, I.C.S.	Judicial Commissioner.
Barton, J. K., I.C.S. .. ..	First Additional Judicial Commissioner.
Stanyou, H. J., C.I.E., V.D., A.D.C., Bar-at-Law ..	Second Additional Judicial Commissioner.
Fitz Gerald, S. G. V. I.C.S. .. ..	Registrar.
Parande, K. G. .. ..	Deputy Registrar.

**N.-W. Frontier Province Judicial Department.**

Barton, W. P., I.C.S. .. ..	Officiating Judicial Commissioner.
Lehma Singh, B., Rai Sahib .. ..	Registrar.

**Punjab Judicial Department.**

Reid, The Hon'ble Sir Arthur Hay Stewart, M.A., Kt., Bar-at-Law.	Chief Judge.
Kensington, The Hon'ble Mr. Alfred, B.A., I.C.S. ..	Judge.
Johnstone, The Hon'ble Mr. Donald Campbell, I.C.S. ..	Judge. (On leave.)
Ratigan, The Hon'ble Mr. Henry Adolphus Byden, B.A., Bar-at-Law.	Judge.
Shah Din, The Hon'ble Mian Muhammad, Bar-at-Law..	Judge. (Officiating.)
Deane, The Hon'ble Mr. William, I.C.S. .. ..	First Temporary Additional Judge.
The Hon'ble Lieut.-Colonel Guy Cecil .. ..	Second Temporary Additional Judge.
The Hon'ble S. W., B.A., I.C.S. .. ..	Legal Remembrancer.
Petman, Charles Bevan, Bar-at-Law .. ..	Government Advocate.
Campbell, Archibald, B.A., I.C.S. .. ..	Registrar.

**United Province Judicial Department.**

Richards, The Hon'ble Sir Henry George, Kt., Bar-at-Law, K.C.	Chief Justice.
Knox, The Hon'ble Sir George Edward, Kt., LL.D., I.C.S.	Puisne Judge.
Banarji, The Hon'ble Mr. Pramada Charan, B.A., B.L. ..	Iditto.
Griffin, The Hon'ble Sir Henry Daley, Kt., I.C.S. ..	Iditto.
Tudball, The Hon'ble Mr. William, I.C.S. .. ..	Iditto.
Chamler, The Hon'ble Mr. Edward Maynard Des Champs, Bar-at-Law.	Iditto.
Rafiq, The Hon'ble Mr. Muhammad, Bar-at-Law ..	Iditto.
Murray, George Ramsay, I.C.S. .. ..	Registrar.
Ashworth, The Hon'ble Mr. E. H., I.C.S. .. ..	Legal Remembrancer.
Ryves, Alfred Edward, B.A., Bar-at-Law .. ..	Government Advocate.
Porter, Wilfred King, Bar-at-Law .. ..	Law Reporter and Secretary, Legislative Council.
Lalit Mohan Banarji .. ..	Government Pleader.

**COURT OF JUDICIAL COMMISSIONER OF OUDH—LUCKNOW.**

Piggott, Theodore Caro, I.C.S. .. ..	Judicial Commissioner.
Lindsay, Benjamin, I.C.S. .. ..	First Additional Judicial Commissioner.
Rai Kanhaiya Lal, Bahadur .. ..	Second Additional Judicial Commissioner.
Shirreff, Alexander Grierson, I.C.S. .. ..	Registrar.
Nagendra Nath Ghosal .. ..	Government Pleader.

## NUMBER AND DESCRIPTION OF CIVIL SUITS INSTITUTED.

Administrations.	Suits under the Rent Law.				Title and other Suits.			
	Suits for Money or Moveable Property.	Arguments of Rent with or without Enhancements.	Enhancement of Rent.	For Ejectment or Possession alone.	All other Suits under the Rent Law.	Total.	Suits for Innovative Property.	Suits for Specific Relief.
Mortgage Suits.								
Other Suits not falling under any of the preceding Heads.								
Total.								
Grand Total.								
Bengal .. .. .	185,929	218,577	204	410	2,179	221,460	22,511	2,479
United Provinces .. .. .	160,652	..	..	..	..	..	13,528	3,202
Punjab .. .. .	157,667	..	..	..	..	..	14,204	2,909
North-West Frontier Province .. .. .	18,734	..	..	..	..	..	2,412	424
Burma .. .. .	63,372	..	..	..	..	..	1,965	553
Central Provinces and Berar .. .. .	93,665	9,031	..	348	..	10,281	8,760	862
Eastern Bengal & Assam .. .. .	220,735	162,744	502	1,133	75	164,454	24,136	5,251
Ajmer-Merwara .. .. .	6,577	289	11	2	56	358	285	..
Coorg .. .. .	2,093	..	..	..	..	..	84	14
Madras .. .. .	363,986	..	..	..	..	..	21,066	4,762
Bombay .. .. .	100,301	..	..	..	..	..	12,160	1,312
British Baluchistan .. .. .	3,817	..	..	1	3	..	81	..
TOTAL, 1910 .. .. .	1,377,428	391,541	807	1,894	2,315	396,557	120,995	21,798
177,183								
41,446								
2,135,407								
290,513								
2,001,008								
1,915,038								
1,867,995								
1,880,206								
1,804,480								
1,817,503								
1,767,965								
1,775,281								
1,754,722								

\* Details not given for 5.

\* Details not given for 5.

\* Details not given for 5.



**THE INDIAN POLICE.**

The Indian Government employ 189,244 men in the ranks of the Indian Police, who are controlled by 749 Gazetted European Officers. In large cities, the Force is concentrated and under direct European control; in the mofussil the men are scattered throughout each District and located at various Outposts and Police Stations. The smallest unit for administrative purposes is the Outpost which generally consists of 3 or 4 Constables under the control of a Head Constable. Outpost Police are maintained to patrol roads and villages and to

report all matters of local interest to their superior, the Sub-Inspector. They have no powers to investigate offences and are a survival of the period when the country was in a disturbed state and small bodies of Police were required to keep open communications and afford protection against the raids of dacoits. It is an open question whether they are now of much use. Each Outpost is under a Police Station which is controlled by an officer known as a Sub-Inspector.

**Distribution of Police.**—The area of a Police Station varies according to local conditions. The latest figures available are:—

	Average area per Police Station.	Average number of Regular Civil Police per 10,000 of Population.
	Square miles.	
Bengal * .. .. .	138	4.4
Eastern Bengal and Assam .. .. .	358	3.4
United Provinces .. .. .	127	7.6
Punjab .. .. .	210	9.6
North-West Frontier Province .. .. .	179	18.5
Central Provinces and Berar .. .. .	275	8.6
Burma * .. .. .	500	13.1
Madras .. .. .	106	7.8
Bombay * .. .. .	290	12.9

\* Excluding the towns of Calcutta, Bombay and Rangoon. The figures include the Railway police, but not Military police.

**ORGANISATION OF POLICE.**

The Police Station Officer (the Sub-Inspector) is responsible for the investigation of all cognisable crimes, that is to say, all offences in which the Police can arrest without a warrant from a Magistrate, which occur within his jurisdiction; he is also held responsible for the maintenance of the public peace and the prevention of crime. From the point of view of the Indian Ryot, he is the most important Police Officer in the District and may rightly be considered the backbone of the Force.

Superior to the Sub-Inspector is the Inspector who holds charge of a Circle containing 4 or 5 Police Stations. His duties are chiefly those of supervision and inspection. He does not ordinarily interfere in the investigation of crime unless the conduct of his subordinates renders this necessary.

The Inspector is usually a selected and experienced Sub-Inspector. Each District contains 3 or 4 Circles, and in the case of large

Districts, is divided into 2 Sub-divisions—one of which is given to an Assistant Superintendent of Police, a European gazetted Officer. The Police Force in each District is controlled by a District Superintendent of Police, who is responsible to the District Magistrate (Collector or Deputy Commissioner) for the detection and prevention of crime and for the maintenance of the public peace, and, to his Deputy Inspector-General and Inspector-General, for the internal administration of his Force. Eight or ten District form a Range administered by a Deputy Inspector-General, an officer selected from the ranks of the Superintendents. At the head of the Police of each Province is the Inspector-General who is responsible to the Local Government for the administration of the Provincial Police.

Separate but recruited from the District Force is the Criminal Investigation Department, which is under the control of a specially selected European Officer of the rank and

standing of a Deputy Inspector-General. The Criminal Investigation Department, usually called the C. I. D., is mainly concerned with political inquiries, seditious cases and crimes with ramifications over more than one District or which are considered too important to leave in the hands of the District Police. It is a small force of Sub-Inspectors and Inspectors who have shown their ability and intelligence when working in the mofussil and forms in each Province a local Scotland Yard.

The larger Cities of Calcutta, Bombay, and Madras have their own Police Force, independent of the Inspector-General of Police, and under the control of a Commissioner and 2 or more Deputies. The latter are selected Superintendents who have learnt their work in the mofussil. For Police purposes, the City area is divided into divisions under the control of non-gazetted European officers, styled Superintendents but not to be confused with District Superintendents. Each division contains a number of Police Stations controlled as in the mofussil, by Inspectors and Sub-Inspectors. A comparatively small number of Europeans are recruited in cities from British regiments for the control of traffic. They have no powers of investigation.

The Supreme Government at Delhi and Simla keeps in touch with the Provincial Police by means of the Director of Criminal Intelligence and his Staff. The latter do not interfere in the Local Administration and are mainly concerned with the publication of information regarding international criminals, inter-provincial crime and Political inquiries in which the Supreme Government is interested.

**Recruitment.**—The constable is enlisted locally. Certain castes are excluded from service and the formation of cliques by filling up the Force from any particular caste or locality is forbidden. In some Provinces a fixed percentage of foreigners must be enlisted. Recruits must produce certificates of good character and pass a medical test. They must be above certain standards of physical development. The constable rises by merit to the rank of Head Constable and, prior to the Police Commission, could rise to the highest Indian subordinate appointments. Since 1906, his chances of promotion have been greatly curtailed; this has certainly lowered the standard coming forward for service in the Force in the lower ranks.

The Sub-Inspector, until 1906, was a selected Head Constable, but Lord Curzon's Commission laid down that Sub-Inspectors should be recruited direct from a socially better class of Indians. In most Provinces, eighty per cent. of the Sub-Inspectors are selected by nomination, trained for a year or 18 months at a Central Police School, and, after examination, appointed direct to Police Stations to learn their work by actual experience. It is too early to judge this system by results, but it has no doubt great disadvantages and undetected crime in India is increasing rapidly.

An Inspector is generally a selected Sub-Inspector. Direct nomination is the exception, not the rule.

The Deputy Superintendent, a new class of officer, instituted on the recommendation of the Commission, is an Indian gazetted officer and is the native Assistant to the District Superintendent of Police. He is either selected by special promotion from the ranks of the Inspectors or is nominated direct, after a course at the Central Police School.

Prior to 1893, the gazetted ranks of the Force were filled either by nomination or by regimental officers seconded from the Army for certain periods. In 1893, this system was abandoned and Assistant Superintendents were recruited by examination in London. On arrival in India they were placed on probation until they had passed their examinations in the vernacular, in law, and in riding and drill. The establishment of Police Training schools in 1906 has done much to improve the training of the Police. Probation, and selection by examination has given Government a better educated officer, but open competition does not reveal the best administrators and should be tempered, as in the Navy, by selection.

**Pay.**—The monthly salaries drawn by each grade of Police Officer are as follows:—

A constable draws from	Rs. 10 to 12.
A Head Constable draws	.. .. 15 to 20.
A Sub-Inspector from	.. .. 50 to 100.
An Inspector from	100 to 200
Deputy Superintendent	200 to 300
Assistants from	300 to 400
District Superintendent	400 to 500
Police from	500 to 600
Deputy Inspectors-General	600 to 700
from	700 to 800
Inspectors-General from	Rs. 800 to 1,000

The appointments of Commissionaries in Calcutta, Bombay, and Madras and Provincial Inspectors-General, may be held by a member of the Indian Civil Service if no Police Officer is found suitable for such appointments.

**Internal Administration.**—The District Force is divided into 2 Branches—Armed and Unarmed. As the duties of the armed branch consist of guarding Treasuries, escorting treasure and prisoners and operating against dangerous gangs of dacoits, they are maintained and controlled on a military basis. They are armed and drilled and taught to shoot after military methods. The unarmed branch are called upon to collect fines magisterially inflicted, serve summonses and warrants, control traffic, destroy stray dogs, extinguish fires, enquire into accidents and non-cognizable offences. The lower grades are clothed and housed by Government without expense to the individual. The leave rules are fairly liberal, but every officer, European or Native, must serve for 30 years before he is entitled to any pension, unless he can obtain a medical certificate invaliding him from the service. This period of service in an Eastern climate is generally admitted to be too long and the efficiency of the Force would be considerably improved if Government allowed both the officers and men to retire after a shorter period of service,

## Statistics of Police Work.

The undesirability of attaching undue importance to statistical results as a test of the merits of police work was a point upon which considerable stress was laid by the Indian Police Commission, who referred to the evils likely to result from the prevalence among subordinate officers of an impression that the advancement of an officer would depend upon his being able to show a high ratio of convictions, both to cases and to persons arrested, and a low ratio of crime. The objection applies more particularly to the use of statistics for small areas; but they cannot properly be used as a basis of comparison even for larger areas without taking into account the differences in the conditions under which the police work; and, it may be added, they can at the best indicate only very imperfectly the degree of success, with which the police carry out the important branch of their duties, which consists in the prevention of crime. These considerations have been emphasized in recent orders of the Government of India. Subject to these observations, the figures below, which relate to cognisable crime only, may be given as some indication of the volume of work falling upon the police, and of the wide differences between the conditions and the statistical results in different provinces:—

	Cases reported during the year.	Cases in which investigation was refused.	Cases proved or declared to be False.	Cases due to Mistakes of Law or Fact or declared non-cognisable.	Cases ending in Conviction.	Cases ending in Discharge or Acquittal.	Cases not Detected or Apprehended.
Bengal .. .. .	167,200	6,553	2,826	9,476	97,618	4,330	43,491
Eastern Bengal and Assam ..	54,512	12,255	1,636	5,180	12,900	1,984	19,528
United Provinces .. .. .	150,250	68,495	2,981	905	37,271	4,614	34,099
Punjab .. .. .	56,497	64	3,386	5,231	21,429	6,058	18,952
North-West Frontier Province	5,834	58	327	654	2,377	901	1,487
Central Provinces and Berar ..	25,738	10,148	1,044	170	5,974	2,116	7,072
Burma .. .. .	69,232	1,204	5,298	15,543	34,170	3,042	8,724
Madras .. .. .	169,646	1,830	5,134	8,048	124,833	9,257	17,129
Bombay .. .. .	78,964	2,276	1,529	9,852	49,733	2,291	12,465
Total British India, 1911 ..	781,007	103,715	24,318	55,153	391,238	34,812	163,599
Total .. {	1909 .. .. .	768,841	119,331	23,917	57,684	38,119	35,552
	1907 .. .. .	796,848	141,326	23,632	55,748	393,632	35,003
	1905 .. .. .	789,241	120,052	24,860	57,439	408,271	38,396

The form of the returns having been altered in 1905, corresponding figures for earlier years are not available.

One or two notes in explanation of noticeable features of the above table will at the same time serve to illustrate the difficulty of drawing inferences of a general nature from the figures. The very large proportion of convictions in Madras is due to the preponderating influence of cases under the head "public and local nuisances," of which 110,360 were reported in 1911, all but a small percentage ending in conviction. In Bengal and Bombay offences under special and local laws in the Presidency towns colour in the same way the total figures for the province. The very numerous cases in the United Provinces in which investigation was refused were

almost all under the heads of larceny, house-trespass and common theft; the proportion of cases fell continuously in the last four years of the decade, but it is considered that investigation is still not infrequently refused in cases in which it should be made.

The statistics in regard to stolen property show that property is recovered on an average in something like 40 per cent. of cases, while the total value of property recovered is generally about one-fourth of the value of property stolen. The figures vary considerably from province to province from year to year. In 1911, the value of property recovered was £256,000, and the total value of property reported as stolen being £1,118,000.

## PRINCIPAL POLICE OFFENCES.

## CASES.

	Offences against the State and Public Tranquility.		Murder.		Other serious offences against the Person.		Dacoity.		Cattle Theft.		Ordinary Theft.		House-trespass and Housebreaking with intent to commit Offence.	
	Reported.	Conviction obtained.	Reported.	Conviction obtained.	Reported.	Conviction obtained.	Reported.	Conviction obtained.	Reported.	Conviction obtained.	Reported.	Conviction obtained.	Reported.	Conviction obtained.
Bengal .. .. .	1,804	705	365	54	5,562	1,253	219	39	1,841	605	28,121	5,700	35,009	2,616
Calcutta Town and Suburbs.	184	66	13	2	710	206	5	..	41	24	4,723	1,201	1,145	247
United Provinces ..	1,326	689	554	182	7,508	2,642	407	98	5,856	1,228	39,794	5,565	70,499	4,156
Punjab .. .. .	1,483	478	525	139	6,201	1,734	103	19	3,475	874	9,414	2,582	19,416	1,982
N.-West Frontier Province.	194	109	352	112	1,234	439	126	10	127	30	945	255	1,779	223
Burma .. .. .	573	316	545	153	9,881	2,791	170	38	5,118	1,343	15,638	5,515	7,853	2,443
Rangoon .. .. .	19	9	20	4	365	96	3	..	8	5	1,354	354	233	77
Central Provinces and Berar.	2,356	195	222	88	1,876	706	65	17	1,074	393	10,565	1,670	7,823	1,151
Eastern Bengal and Assam.	2,555	993	324	57	4,824	1,136	199	25	1,378	396	12,634	2,640	26,380	2,077
Coorg .. .. .	8	6	5	2	41	16	2	1	13	2	138	55	71	11
Madras .. .. .	1,729	607	665	124	5,163	1,370	570	72	4,668	1,497	19,508	5,091	18,006	2,834
Bombay .. .. .	1,330	556	429	144	3,854	1,058	167	50	3,638	803	11,930	3,867	9,401	1,608
Bombay Town and Island.	89	70	12	11	531	282	..	..	..	..	4,466	2,474	1,127	359
TOTAL, 1910 ..	11,700	4,599	4,031	1,092	47,750	13,749	2,150	369	27,237	7,200	159,280	37,279	199,604	19,784
1909 .. .. .	11,919	4,614	3,885	1,143	44,960	12,947	2,524	453	27,833	7,710	169,451	40,872	207,283	21,296
1908 .. .. .	12,411	4,797	4,014	1,203	43,838	12,678	2,984	659	29,456	8,927	194,246	48,448	236,280	24,972
1907 .. .. .	12,181	4,451	3,603	1,063	42,921	12,506	3,360	28	27,809	7,492	178,898	43,173	212,299	21,679
1906 .. .. .	12,386	4,490	3,555	1,090	42,993	12,452	2,085	19	27,577	7,831	184,915	45,112	203,701	22,654
1905 .. .. .	12,313	4,456	3,386	1,048	43,828	12,920	2,277	19	25,847	7,038	174,091	40,401	194,232	21,760
1904 .. .. .	14,859	4,619	3,448	1,001	49,999	13,577	2,069	..	25,553	5,850	138,838	36,553	138,998	20,037
1903 .. .. .	15,528	4,453	3,340	1,103	47,805	12,576	2,339	..	23,663	6,637	129,394	35,644	136,805	18,562
1902 .. .. .	15,350	5,103	3,144	1,109	45,538	13,326	2,360	..	26,502	7,454	171,045	41,475	126,167	16,094
1901 .. .. .	15,199	5,088	3,255	1,102	42,496	12,527	3,230	..	29,691	9,307	183,463	45,566	192,353	23,143

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**JAILS.**

Jail administration in India is regulated generally by the Prisons Act of 1894, and by rules issued under it by the Government of India and the local governments. The punishments authorised by the Indian Penal Code for convicted offenders include transportation, penal servitude, rigorous imprisonment (which may include short periods of solitary confinement), and simple imprisonment. Accommodation has also to be provided in the jails for civil and under-trial prisoners.

There are three classes of jails: in the first place, large central jails for convicts sentenced to more than one year's imprisonment; secondly, district jails, at the head-quarters of districts; and, thirdly, subsidiary jails and "lock-ups" for under-trial prisoners and convicts sentenced to short terms of imprisonment. The jail department in each province is under the control of an Inspector-General; he is generally an officer of the Indian Medical Service with jail experience, and the Superintendents of certain jails are usually recruited from the same service. The district jail is under the charge of the civil surgeon, and is frequently suggested by the district magistrate. The staff of a district jail includes, in large Eastern Bengal and Ajmer Superintendents to superintend manufactures, and in all central jails one or more subordinate local officers. The executive staff consists of jailors and warders, and convict petty officers are employed in all central and district jails, the prospect of promotion to one of these posts being a strong inducement to good behaviour.

**Employment of Prisoners.**—The work on which convicts are employed is mostly carried on within the jail walls, but extramural employment on a large scale is sometimes allowed, as, for example, when a large number of convicts were employed in excavating the Jhelum Canal in the Punjab. Within the walls prisoners are employed on jail service and repairs, and in workshops. The main principle laid down with regard to jail manufactures is that the work must be penal and industrial. The industries are on a large scale, multifarious employment being condemned, while care is taken that the jail shall not compete with local traders. As far as possible industries are adapted to the requirements of the consuming public departments, and printing, tent-making, and the manufacture of clothing are among the commonest employments. Schooling is confined to juveniles; the experiment of teaching adults has been tried, but literary instruction is unsuitable for the class of persons who fill an Indian jail.

The conduct of convicts in jail is generally good, and the number of desperate characters among them is small. Failure to perform the allotted task is by far the most common offence. In a large majority of cases the punishment inflicted is one of those classed as "minor." Among the "major" punishments fetters take the first place. Corporal punishment is inflicted in relatively few cases, and the number is steadily falling.

**Juvenile Prisoners.**—As regards "youthful offenders"—i.e., those below the age of 15

—the law provides alternatives to imprisonment, and it is strictly enjoined that boys shall not be sent to jail when they can be dealt with otherwise. The alternatives are detention in a reformatory school for a period of from three to seven years, but not beyond the age of 18; discharge after admonition; delivery to the parent or guardian on the latter executing a bond to be responsible for the good behaviour of the culprit; and whipping by way of school discipline.

The question of the treatment of "young adult" prisoners has in recent years received much attention. Under the Prisons Act, prisoners below the age of 18 must be kept separate from older prisoners, but the recognition of the principle that an ordinary jail is not a fitting place for adolescents (other than youthful habituals) who are over 15, and therefore ineligible for admission to the reformatory school, has led Local Governments to consider schemes for going beyond this by treating young adults on the lines followed at Borstal, and considerable progress has been made in this direction. In 1905, a special class for selected juveniles and young adults was established at the Dharwar jail in Bombay; in 1908 a special juvenile jail was opened at Alipore in Bengal; in 1909 the Meiktila jail in Burma and the Tanjore jail in Madras were set aside for adolescents, and a new jail for juvenile and "juvenile adult" convicts was opened at Bareilly in the United Provinces; and in 1910 it was decided to concentrate adolescents in the Punjab at the Lahore District jail, which is now worked on Borstal lines. Other measures had previously been taken in some cases; a special reformatory system for "juvenile adults" had, for example, been in force in two central jails in the Punjab since the early years of the decade, and "Borstal enclosures" had been established in some jails in Bengal. But the public is slow to appreciate that it has a duty towards prisoners, and but little progress has been made in the reformation of prisoners' Aid Societies except by the Salvation Army.

**Reformatory Schools.**—These schools have been administered since 1899 by the Education department, and the authorities are directed to improve the industrial education of the inmates, to help the boys to obtain employment on leaving school, and as far as possible to keep a watch on their careers.

**Transportation.**—Transportation is an old punishment of the British Indian Criminal law, and a number of places were formerly appointed for the reception of Indian transported convicts. The only penal settlement at the present time is Port Blair in the Andaman Islands. Under existing rules convicts sentenced to transportation for life, or for a term of years of which six have still to run, may be transported to the Andamans, subject to their being physically fit, and to some other conditions in the case of women. The sanctioned scheme contemplates five stages in the life of a male transported convict, the first six months being passed in a cellular jail, the next eighteen months in association in a jail similar to those of the Indian mainland, and the following three years as a convict of the third class kept to hard gang

labour by day and confined in barracks by night. Having thus completed five years, a convict may be promoted to the second class, in which he is eligible for employment in the various branches of the Government services or in the capacity of servants to a private resident. After five years so spent, a well-behaved convict enters the first class, in which he labours under more favourable conditions, or is granted a ticket enabling him to support himself, with a plot of land. He may now send for his family or marry a female convict. The three later stages of this discipline have been in force for many years, and the first for some time, the cellular jail having been finished in 1905; but the associated jail for the second stage has not yet been built. Females are kept at intramural work under strict jail discipline for three years; for the next two years they are subjected to a lighter discipline, and at the end of five years they may support themselves or marry. Promotion from class to class depends on good conduct. The convicts are employed in jail service, in the erection and repair of jail build-

ings, in the commissariat, medical, marine, and forest departments, in tea-gardens and at other agricultural work, and in various jail manufactures. Ordinary male convicts sentenced to transportation for life are released, if they have behaved well, after twenty years, and persons convicted of dacoity and other organised crime after twenty-five. Thugs and professional prisoners are never released. Well-behaved female convicts are released after fifteen years. The release is sometimes absolute and sometimes, especially in the case of dacoits, subject to conditions, e.g., in regard to residence. In some cases released convicts prefer to remain in the settlement as free persons. The settlement is administered by a superintendent, aided by a staff of European assistants and Indian subordinates. The convict population of Port Blair amounted in 1912 to 11,235, consisting of 10,633 males and 602 females, of whom 1,566 and 272 respectively, mostly occupied as cultivators, were "self-supporters." The total population of the settlement was 15,613.

### Jail Charges and Receipts.

The following table shows the jail charges and receipts in 1901-02 and 1911-12.

	1901-02.	1911-12.
<b>Charges—</b>	£	£
Jail manufactures .. .. .	151,867	155,855
Other jail charges .. .. .	520,817	579,616
Convict charges at Port Blair and Nicobars .. .. .	98,612	106,765
Other charges .. .. .	270	496
<b>Total Charges .. .. .</b>	<b>771,566</b>	<b>842,732</b>
<b>Receipts—</b>		
Sale-proceeds of jail manufactures .. .. .	207,565	217,935
Convict receipts at Port Blair .. .. .	22,629	22,264
Hire of convicts .. .. .	13,136	7,549
Other receipts .. .. .	6,803	5,607
<b>Total Receipts .. .. .</b>	<b>250,133</b>	<b>253,355</b>
<b>Net Expenditure .. .. .</b>	<b>521,433</b>	<b>589,377</b>

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## Health in the Tropics.

BY MAJOR GORDON TUCKER, I.M.S.

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If the principal scourges of the European in the tropics, namely, malaria, dysentery, and typhoid, could be removed, there would still remain the strain of climate as a source of disease and a cause of deteriorated health, not amounting for a time to actual illness, but eventually showing its effects in lessened resistance to the wear and tear of life, premature senility of the tissues, and diminished fertility. This results mainly from the transfer to a hot climate of an individual whose heat-regulating mechanism has previously adapted itself to conditions where the body temperature has to be maintained some 40° above that of the surrounding air. On arrival in a country where the temperature of the air is perhaps the same as that of the living tissues, it is obvious that there must be a sudden and violent disturbance of such mechanism. This mechanism is very complex and exists for the purpose of striking a balance between the heat formed by the from the same tissues, and the heat lost from the charge of the civilisation. This there is no doubt, is affected by the district in which the individual is situated.

The variation of the temperature is dependent in Eastern way on the normal working of the central nervous system, as is shown by the results of the

One alteration which may take place in the temperature of parts of the body when the brain has been subjected to some gross lesion.

In the tropics the amount of carbonic acid given off by the lungs is reduced about twenty per cent., the number of respirations per minute is reduced, and there is lessened activity of the lungs. This shows that there is less tissue change (or combustion) going on in the tissues, that is to say, diminished heat-production. The same is shown in the diminished amount of work done by the kidneys. As regards heat-loss, this is almost entirely effected through the skin, 70 per cent. of the heat of the body in temperate climates going off by radiation and conduction, and 15 per cent. by evaporation. When however the temperature of the tropical atmosphere rises, the loss by radiation falls to nothing, and all the heat has to be dissipated by evaporation from the surface. Consequently, practically all the work of losing heat, which strikes the balance with the heat production and maintains the body at a normal temperature, falls upon the sweat glands which are therefore in a state of continued and abnormal activity. In hot dry atmospheres the water evaporates as soon as formed, but in conditions of heat with great humidity, such as obtain during the worst months of the year in Calcutta and Bombay, the skin is kept continually moist by trickling beads of perspiration. Herein lies the comfort and healthiness of the punkah which removes excessive moisture. But it is obvious that in order to keep the temperature of the body normal there must be increased flow of blood to the surface of the body, a state quite different from the conditions under which the organs of the European have been trained. This favours those sudden chills to which Europeans are so subject, and acts prejudicially to the working of the internal organs, especially those subserving

digestion. A blast of cold air coming on the congested skin in the early hours of the morning must chill the surface, causing a sudden contraction of the cutaneous vessels, and tending to produce a rapid flux of blood to the deeper parts, inducing a congestion of the mucous membrane of the bowels, and from that results the "morning diarrhoea" which is occasionally severe and exhausting. Such a state of affairs may become chronic, and so lead up to one of the climatic diarrhoeas which are a frequent cause of invaliding. Moreover a sudden congestion of the liver and spleen in a person who has had malaria, may be followed by a malarial hepatitis or splenitis, and repeated attacks of these conditions may result in permanent enlargement of these organs; or at any rate, in the case of the stomach and liver, to derangement of function and so to chronic dyspepsia or insufficient manufacture of bile.

Again, the chronic hyperæmia of the skin favours the development of fungi and microbes. Hence the existence of ringworm of various kinds from which Europeans frequently suffer. There are microbes which, even in temperate climates, are found within the layers of the skin or on the surface. On account of the chronic congestion and moisture of the skin in tropical climates these microbes not only become abundant, but virulent, and hence the Boils which are often a serious affliction in the hot months. We frequently come across most distressing cases where the patient is covered from head to foot with them. When the boil comes to a head and softens it is easy to afford relief by opening each, and so relieving tension; but the worst kind is the "blind boil" which forms as a hard red mass intensely painful and not coming to a head, and here an incision gives little relief. Until lately these cases were very unsatisfactory to treat, and patients would recover after weeks of pain and much reduced in health. Fortunately we have in the vaccine treatment a most successful method, the vaccine used being either a streak one and generally acting like magic; or, in a small percentage of cases requiring to be made from the boils themselves. In still other cases the infection of the skin causes the formation of CARBUNCLES, which are more serious but require treatment on the same lines.

Another more common condition resulting from the congestion of the skin is PRICKLY HEAT. This results from acute inflammation about the sweat glands and distention of their orifices, producing red papules and little vesicles, the site of intense itching. The trouble is believed to result from the proliferation of a particular microbe in the skin, which alters the reaction of the perspiration. Be this as it may, inoculation of the skin is likely to take place through scratching, and so to the formation of boils. In some cases the skin is so intensely inflamed that the region of the shoulders and neck feels like leather, or the surface gives the impression of sand-paper. It is a serious condition in young infants, as

the irritation prevents sleep, interferes with digestion and so promotes diarrhoea, so that this simple malady may be the starting point of a dangerous illness. Plunged next to the skin should be avoided in the hot weather as it is so liable to start the irritation. A good lotion consists of two teaspoonfuls of Eau-de-cologne in ten ounces of a 1 in 2000 solution of perchloride of mercury, dabbed on the skin and allowed to dry: followed by dusting with equal parts of boric acid powder and talc.

To avoid the heat the European flies to the punkah. The electric punkah has been one of the greatest blessings introduced during recent years into Indian towns as its use insures a good night's rest in place of the weary hours of sleeplessness which formerly wore out the temper and the mental energy of the European during the hottest months. Still this blessing is not without its attendant dangers. Most common are attacks of muscular rheumatism; sudden internal chills causing diarrhoea, attacks of colic, ordinary nasal catarrh, and sometimes bronchitis or pneumonia. The electric punkah does away with the mosquito curtain, which does not conduce to the free circulation of air, and gives good ventilation in its place.

Finally, we have the old, not a continued high temperature on the venereal gland the nervous system. As has been recently shown, the late Lt.-Col. Crombie, I.M.S., (deceased by a paper on "The measure of phyla, and less for life in the Tropics," to which the writer is much indebted), "In the tropics there is going on continually and unconsciously a tax on the nervous system which is absent in temperate climates. The nervous system, especially those parts of it, which regulate the temperature of the body, are always on the strain, and the result is that in time it suffers from more or less exhaustion." The mean temperature of a European in India is always about half a degree higher than it is in a temperate climate, and it may be raised to 99° or 100° after severe bodily exertion. When, under the strain of a severe hot moist and sultry season, the heat-centre gives out, or as it is said is "inhibited," we have all the serious phenomena of HEAT STROKE. But in the less marked but long

drawn out process of nervous exhaustion we have the common tropical effect of deficient mental energy, generally commencing with unnatural drowsiness or loss of appetite and a yearning for stimulants, which culminate in that lowering of nerve potential which we know so well as NEURASTHENIA. This nervous disturbance due to climate is likely to be most marked, as Crombie points out, in two classes of persons, namely those who suffer from obesity, and those who are members of families which may be designated as "neuropathic," that is whose nervous systems are naturally unstable. To these may be added persons with naturally defective digestion and those who have a predisposition to gout.

To sum up, it will be seen that the effects of long residence in the tropics are real and permanent, not only in the direction of lowered bodily health, but in undue wear of the nervous system, which may not only be apparent during active service in duties involving responsibility or responsibility, but also in retirement; so that the chances of long life by a retired Indian official are not up to the villages and the "extra" which the Insurance Company puts on such lives is not only to cover the disease incidental to life in the tropics, but also of diminished vitality of those who have surely to enjoy their pension and ease.

But there are other Indian risks, and these are most likely to affect travellers, due to the effects of heat on food. Microbes multiply with profusion in milk, and decomposition is liable to occur in meat within a very short time after killing. Milk should always be boiled; and owing to the dirt in railway dining-rooms, and in many hotels, and the carelessness of the lower type of native servant employed therein, it would be better to rely on tinned milk or on a supply of Horlick's milk tablets, when travelling long journeys by rail and in the smaller towns. Beef should never be eaten underdone, as it is a prolific source of tapeworm in India. There is also liability to contamination of food by flies and dust. Indian cooks, though among the best, have little regard for sanitation, and consequently the state of the cook-house should be carefully supervised.

## MALARIA.

Attacks of malaria, dysentery, and enteric represent the principal risks to the European travelling in India. Malaria is the commonest cause of fever in the tropics and subtropics, but the risks therefrom have been greatly diminished by our complete knowledge of its causation which now permits an intelligent prophylaxis, that is, taking adequate precautions against infection. The connection of certain kinds of fever with marshy soils has been recognised from ancient times, whence its old name of paludism; and the word "malaria" itself implies the belief in the existence of an emanation of poisonous air from the water-logged ground. It is now realised that the poison is conveyed solely by mosquitoes, and by the anopheline species. There are only a few of the many anophelines which carry malaria, but all are to be regarded as dangerous.

The parasite of malaria is a delicate jelly-

like body which invades the red cells of the blood, and lives at their expense. It has two life-cycles, one within the blood of the human host (endogenous and asexual), the other in the stomach and tissues of the mosquito (exogenous and sexual). But the first part of the sexual cycle is prepared for in the blood of the human host.

If the blood of a patient be taken about an hour before the occurrence of the "rigor" (the shivering-fit which marks the commencement of the attack), and examined in a thin film under a high power of the microscope, some of the red corpuscles will be found to contain bodies composed of delicate protoplasm showing minute granules of dark pigment in their substance. These bodies are the parasites. The granules represent the result of the destruction by the parasite of the red colouring-matter of the blood-cell. The



latter consequently appears paler than natural and is enlarged. In the parasite of the so-called benign tertian fever, if the blood be again examined when the rigor is commencing, the little mass of jelly is found to have divided into from twelve to twenty minute spheres all held together by the remains of the degenerated red cell, and with minute masses of pigment in the centre. Later the group of spherules has burst through the envelope that held them, and has appeared free in the blood-fluid. Many of these free spherules are attacked and absorbed by the phagocytes, but those which escape destruction effect their entrance into other red blood cells and go through the same process of sexual division, taking forty-eight hours for the process. On the time taken for this cycle to occur depends the periodicity of the fever, the attack appearing every third day, whence the name tertian fever. Another variety of malarial parasite, not very common in the Indian Archipelago, but which must be seen seventy-two hours to complete its cycle, is called the "quartan" variety. It is a complex and also a third kind of parasite called a balance-giant tertian, called by the Italians the aestivo-autumnal parasite, which also takes forty-eight hours to go through its cycle, and which gives rise to a more irregular fever, as more pernicious effects on the system. Eastern is also liable to produce severe nervous symptoms, such as unconsciousness, often ending in death with very high fever. Each kind of parasite has its special characteristics which can be observed by microscopical examination. Consequently expert examination of the blood is always advisable in cases of fever, not only to show that malaria is present, but also to distinguish the particular kind which is causing the trouble.

Within the blood there also appears the first stage of the sexual life of the parasite in the shape of male and female elements, which result from some of the parasites which do not undergo the usual segmentation described above, and which exist for the purpose of allowing further development in the non-human host, which in the case of this particular parasite is the mosquito. These sexual elements are especially in evidence in the blood of cases of the pernicious variety of malaria. In the form of crescentic bodies which obtain considerable protection from the phagocytes, and many therefore persist for some time in such blood. "Crescents" appear only in malignant fevers, and persons who harbour them are of course a danger to the community, inasmuch as the mosquitoes of the locality are infected from them, thus rendering such village or street unhealthy from malaria.

The sexual elements of the malarial parasites when taken into the stomach of the mosquito which sucks up the blood of its victim, undergo certain changes, the male element extruding flagellate or hair-like processes which fertilise the female. The latter thereupon changes into a body endowed with the property of locomotion, which makes its way into the coats of the stomach of the insect, and becomes divided up into a vast number of minute cysts, each of the latter becoming packed with minute rod-like bodies. The cysts rupture into the body-cavity of the mosquito, and the rods, thereby set free, be-

come collected within the substance of the salivary glands, and ultimately make their way to the base of the proboscis. On such an infected mosquito pushing its proboscis into the human skin when it wishes to draw blood some of the rods are injected into the blood stream. They then enter red blood corpuscles and go through the various cycles described above.

From three to five days, or as long as a fortnight, after being bitten by such a mosquito the patient has an attack of fever, sometimes preceded by pains in the limbs, headache, and malaise. This is soon succeeded by a feeling of intense chill, perhaps associated with vomiting. The skin becomes cold and blue, the shivering is excessive and prolonged, constituting the "rigor" stage. In this state the patient is in great distress, and obtains little sense of relief from the blankets which he heaps up over himself. Although the surface of the body is very cold, the temperature, taken in the arm-pit or mouth, shows a rise to 103° or higher. In a quarter of an hour or more the "hot stage" comes on, the face becoming flushed, the surface of the body red and warm, the small quick pulse becoming full and bounding, and perhaps the patient complains of stence of headache. He remains thus for a high Eur's and then occurs the "sweating" or profuse perspiration breaking out about the face, and soon extending to the rest of the body. Great relief is experienced when this stage is over, and is likely to be followed by a refreshing sleep. During the paroxysm the spleen is often enlarged and may be the seat of considerable pain. There is also often troublesome cough from a concomitant bronchitis. With repeated attacks the enlargement of the spleen is liable to become permanent, the organ coming to form a large heavy tumour with special characteristics, the so-called "ague cake," which is common among the children of malarious districts. Europeans who suffer from severe or repeated malaria are likely to suffer from permanent ill-health in the shape of anæmia, dyspepsia, or easily-induced mental fatigue.

#### Treatment.

The traveller in India should endeavour to guard himself against the bites of mosquitoes. This can be done to a great extent by the use of mosquito curtains, the mosquito seeking the blood of its victim mainly at night. But when travelling by train protection is difficult. There are some odours which mosquitoes appear to dislike. Sprinkling the pillow with lavender water is sometimes efficacious, or smearing the hands with lemon-grass oil. Camps should not be pitched in the neighbourhood of native villages, if it can be avoided. Travellers should provide themselves with thermometer and a supply of quinine tablets.

During the cold stage the patient should be well covered, and hot fluids administered, unless vomiting is present. Quinine should not be taken in this stage as it increases the distress. A diaphoretic, or sweating mixture, should be administered every two or three hours until the skin becomes moist, and throughout the hot stage: this soon gives relief, and when the stage of perspiration has been reached, ten

grains of quinine should be given, and repeated in five grain doses every six hours until the temperature becomes normal. Thereafter the drug should be continued for a few days in doses of five grains twice a day. This is calculated to ward off a second attack, or, at any rate, to reduce its severity and prevent a third. If there is vomiting, quinine tablets are not likely to be digested and absorbed; in such cases the drug should be given in a mixture dissolved in a dilute acid. The advantage of quinine tablets is that the unpleasant taste is avoided.

There are some severe continuous malarial fevers which appear to resist the action of quinine. These are the pernicious tertian fevers, which so often cause difficulty in diagnosis inasmuch as for a few days they may suggest enteric fever, especially to those inexperienced in tropical diseases. In such cases larger doses of quinine are required, the

skin being kept moist meanwhile by a diaphoretic mixture. Some of these fevers last for a week or longer, but the majority of them yield to quinine in three or four days. It is in such that an early examination of the blood is so useful. In certain cases of profound malarial poisoning or where, for any reason, quinine does not appear to be acting when administered by the mouth, recourse must be had to the injection of quinine into the tissues. This should always be done by a skilful physician, and with special precautions, as some cases of tetanus have occurred after quinine injections taken from stock solutions, even when apparently given with every care. The "vaporoles" prepared by Messrs. Burroughs Wellcome & Co., which the lot of little glass capsules containing prep into one of the drug dissolved in sterile and non fluid, appear to be absolutely devoid, and are very efficacious.

### TYPHOID FEVER.

By Typhoid or Enteric Fever an equally a continued fever, lasting for the of admissions (or, due to the entrance into of a particular bacillus (at), which not only pro liable to attack the (at), trouble but also symaving had an attac, animal generalised infection of aged, not necessari, bacillus and the poisons which "meral good living, formerly the scourge of the British East India, especially among the "ceded by cor, it has been reduced to a, Asia, and mough the prophylactic, liver region. Both Wright's vaccine, ce, the, ly enlargin, to the sanitary condition of on, bay, with exifiers' quarters, improvement of wa, with flies, and skilful medical treatment.

"Paratyphoid" is a term applied to certain fevers which have all the characters of typhoid, but with a rather lower mortality, and which are due to infection by bacilli which are closely related to the typhoid bacillus.

The fact that typhoid more frequently attacks the new arrivals to the tropics renders this disease one of the risks which tourists have to face, but this can be minimised by knowledge of the manner in which the typhoid bacillus affects an entrance into the system.

Typhoid Fever has now been shown to be a common affection, among Indians, contrary to what was held some fifteen years ago. In Bengal and the Punjab, according to Leonard Rogers (Fever in the Tropics), the maximum of cases for all classes occurs during the hot months, while the maximum for Bombay is in the rainy season. But taking the European cases only he finds that the largest number of cases falls within the dry, cold and hot seasons, and considers that this is due to the European being most frequently infected through contaminated dust, this class of person paying greater attention now-a-days to the condition of the water which he drinks: unlike the Indian who will drink water out of the nearest tap.

As is well known, infection of typhoid is most commonly produced by contamination of drinking water. Great care is therefore necessary in boiling and filtering drinking water, and in protecting the vessels in which

it is kept from contamination by dust. In the neighbourhood of all native villages the soil is laden with animal dejecta which, of course, is very likely to be associated with disease-producing microbes. Hence infection of the food in cook-houses and shops is easily produced by the wind carrying the dust from latrines and other foul areas. Uncooked vegetables produced from gardens watered by sewage-containing fluid are also very dangerous, and should be avoided by the Indian traveller. Lastly oysters taken from estuaries which receive rivers laden with organic matter from the villages on the banks are believed to afford special protection to the typhoid bacillus, and when eaten raw are dangerous.

In many cases the onset of the disease is sudden, with headache, shivering and vomiting, but in a little less than half the onset is insidious, the patient being out of sorts, slightly feverish, perhaps with occasional looseness of the bowels, loss of appetite and a little sleeplessness. He ultimately takes to his bed, generally dating the commencement of his illness from this event, and there forthwith begins a period of at least three weeks of anxiety for his friends and relatives, inasmuch as enteric fever, as seen among Europeans in India, is characterised by its greater severity and longer duration. The temperature rises gradually day by day during the first week, remains at a fairly constant high level during the second, becomes irregular with daily remissions during the third, and in the majority of cases is succeeded by a period of convalescence, during the first part of which the greatest care in dealing with the patient is required. The bacillus produces its most important effects on the lower portion of the small intestine, certain glandular structures in the wall of the bowel becoming inflamed, enlarged, and finally ulcerated. It is on the formation of these intestinal ulcers that many of the worst complications depend. The ulcerative process favours, first a looseness of the bowels, later an exhausting diarrhoea. Moreover the destruction of some of the coats of the bowel may open up an adjacent blood vessel and produce alarming or even fatal hemorrhage. And again the whole thickness of the bowel may be perforated, causing death

from collapse and peritonitis. This is the danger which the physician has in view throughout the case. It can only be guarded against by the most careful nursing and attention to the dietary. Other dangers are bronchitis and failure of the heart, especially during the third week. During the stage of convalescence the same care has to be taken with the dietary as the ulcers are undergoing healing, and an error might lead to the rupture of one of them when all danger may well be expected to have passed. Finally, owing to the depressing effects of climate, convalescence is often attended with prolonged mental depression.

Eight hours for the process, if it is absolutely light for treatment, depends on the day of that the patient should be in the day skilled nursing. Fortunately in India, European nurses can now be obtained in any populous centre, though occasionally when the demand exceeds the supply, not less than two nurses should be obtained for day and night duty respectively. Unless it is absolutely necessary to remove him, the patient should be nursed where he falls ill and not sent long distances by train. At the most he should travel to the nearest large town where there is a Civil Surgeon. Treatment mainly consists in keeping the fever within the bounds, and thereby sparing the three weeks' heart which is great during the great of continued fever. This is effected in great part by the system of hydrotherapy, that is, treating the patient by continued tepid baths or by frequent sponging with tepid water to which a little toilet vinegar should be added. There is no special drug which is of any use

in aborting the fever, but this does not mean that drugs are of no use in typhoid. On the contrary the complications, which are many, will be detected as they arise by the careful physician, and there is no disease which tries more than this the skill of the doctor and the care of the nurse, who will frequently bring to convalescence what seems to be an almost hopeless case. Abdominal distension, for instance, is a frequent and serious complication in Indian typhoid, and should be treated as soon as detected. It results partly from the decomposition of the intestinal contents, partly from loss of the muscular tone of the bowel. It hinders the respiration and the action of the heart, and favours the occurrence of perforation. Diet consists almost entirely of milk, either pure, diluted with barley water whey, or as a jelly.

It is a word which should be said about the importance of typhoid inoculation to those who travel in India or the tropics. It is a very Wright's prophylactic vaccine having home, but if this is not submitted to on arrival in the majority of cases the only distinction is a little passing tenderness of the abdomen; in some cases a little fever; and in the worst (the typhoid soldiers) a severe fever of sorts for twenty-four days (with a larger dose) and a danger as a routine precaution as a routine measure and by a rigorous set of the catas-trophes which the spleen is often come to the "globe-hotters" or considerably country for pleasure or war.

## DYSENTERY.

The term Dysentery is applied to several forms of infective inflammation of the large bowel, in which the principal symptoms are griping, abdominal pain, frequent straining, and the passage of a large number of evacuations characterised by the presence of blood and mucus. The changes which take place occur in the mucous membrane of the large bowel, and are first an acute catarrh succeeded by ulceration more or less extensive, and sometimes going on to gangrene.

The disease is endemic in India, and is in fact common in Eastern countries, and in Egypt. It is liable to arise in epidemic form, especially among armies in the field. It is caused by a contaminated water supply, and by the infection of food by dust and flies. Dysentery is probably caused by several varieties of micro-organisms but for all practical purposes may be said to be divided into two groups, one due to the amoeba of dysentery, and the other caused by bacillary dysentery. The latter form is more common in Japan and in the north-eastern side of the Indian peninsula; the amoebic form being most commonly seen in the Bombay Presidency. The bacillary form is characterised by the presence of a very large number of evacuations perhaps as many as a hundred or even more in the twenty-four hours. In the amoebic form there are seldom more than twenty evacuations in the day, and there is

greater tendency to thickening of the bowel wall, and to the danger of abscess of the liver.

After a few days of severe fever that the patient recover there is a danger that the case may become chronic, a condition which is associated with emaciation and profound weakness. The chronic form is also more likely to eventuate from the amoebic type.

The frequency with which it attacks Europeans in India may be judged from the admissions of the European soldiers into the hospital, the figures of admissions for each of the years 1910 and 1911 being 7.7 per thousand of strength.

The treatment of the bacillary form, with anti-dysenteric serum has had good results. In the amoebic form most Indian physicians still rely, and rightly so, on the use of ipecacuanha. This has to be given with particular precautions and with a previous dose of opium to diminish the liability to vomiting. Recently, thanks to the work of Leonard Rogers, a valuable drug has been placed in our hands in the form of emetine, an alkaloid derived from the ipecacuanha root; and which when injected into the deeper layers of the skin, gives all the good results of ipecacuanha without its unpleasant effects. It is of special value in the case of children in whom acute dysentery is a very serious disease. We have hereby obtained one more efficient weapon in the contest with one of the common diseases of India.

ABSCESS

There are several varieties and causes of abscess of the liver but the term is applied in India to the single abscess which forms as the result of amoebic dysentery, latter generally preceding but being concomitant with the abscess. It is one of the scourges of India, and is especially prevalent on account of the all the cases for chronic and death will

India state. abscess is the among European troops, and deaths on account of it greatly during recent years. The also notes that the decrease in the number of cases of liver abscess is coincident with an equally steady fall in the number of admissions to hospital for alcoholism.

The disease is most liable to attack those who, in addition to having had an attack of dysentery, have indulged, not necessarily to excess, in alcohol and general good living, and are at the same time somewhat sluggish in their habits. It is often preceded by continued fever, malaise, dyspepsia, and more or less uneasiness in the liver region, or the latter organ may be acutely enlarged and very tender. In many cases the exact diagnosis is often a

is especially liable to form on the left internal organs.

same complication may evacuate when abscess forms on the right side. Here the principal point of rupture is into the right lung, the contents of the abscess being suddenly evacuated, in some cases without much warning, and nature thereby effecting a cure. Such a termination however is not desirable as healing will take place quicker by surgical means.

There are some abscesses which are exceedingly insidious, it often happening that patients are sent home with a fever associated with general loss of health and weight, where the existence of a deep seated abscess may not even be suspected, but in which the symptoms of hepatic abscess suddenly occur and clear up the case: or the correct diagnosis may obtrude itself by the sudden rupture as above described.

PLAGUE.

Plague is a disease of very great antiquity; its ravages and symptoms have been described with remarkable accuracy by the old historians, such as Procopius. Not many years ago it appeared to be a disease of historical interest only, but the present pandemic, which commenced about 1894, has made it a subject of the greatest importance to the inhabitants of the British Empire. It was in March 1894 that it first became prominent in Canton, and thereafter it spread to Hongkong, Macao and Pakhoi, and so along the whole of the Southern China Coast. It probably arrived in Bombay in March 1896, but it was not until the end of September that it became noticeable in that part of the native city known as Mandvi, in which the great grain supplies are collected, and wherein consequently there is an enormous rat population. In October of the same year the presence of the pestilence was officially acknowledged. Everything which the limited knowledge of the subject at that time suggested, was done to check its spread; but, in spite of all efforts, the pestilence spread from the infected city throughout the greater portion of the Peninsula, and while its ravages of late years have not been so terrible as at its first appearance, yet the disease still takes its annual toll of human life, and is apparently become one of the endemic diseases of India. According to the official figures of India since its appearance has been visible for more than seven and a half centuries within the limits of the Indian Empire. These figures should perhaps be increased

about fifteen to twenty per cent., due to defects in the registration of the causes of deaths and also to the fact that the disease often simulates other maladies for which it is likely to be mistaken by an uneducated population.

Plague is an acute infection of the blood by a bacillus which was discovered by Kitasato in Hongkong in 1894. It generally affects its entry by the skin, on which it is deposited by the rat-flea. At the site of deposit a small pustule is occasionally found which soon forms a superficial ulcer. In such cases inflammation and distention of the lymphatics may be noticed running from the neighbourhood of the small and painful ulcer to the nearest group of glands. These will be found to be enlarged and exquisitely tender, the tenderness being out of all proportion to the size of the glandular enlargement and to the amount of local inflammation. This glandular enlargement is called the Bubo, which has given the name to the most common form of the pest-Bubonic Plague.

With the appearance of the Bubo, or even a day or so before it, there is evidence of a general infection of the system, in the shape of extreme prostration, mental confusion, a furred tongue, and fever which is generally high. The pulse is accelerated, and while at the outset, especially in full-blooded muscular adults, it is likely to be full and bounding, there is sooner or later, generally soon, evidence of early failure of the strength of the cardio-vascular system. The pulse also becomes quicker, smaller, and the heart

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from collapse and per case progresses, the large and become of an danger which the phytic Bubo will also enlarge out the case. It found the inflamed lymphatics by the most eaten and cedematous. To this the dietary. In "cellulo-cutaneous plague" has and failure of. The spreading ulcer, which is third week's gangrene, has been described as since the "carbuncle"; these forming on dietary of those affected were often referred and an old historians as a prominent feature in one of ancient epidemics.

These cases however are somewhat uncommon. The usual variety met with is the Acute Bubonic Plague. In this the patient is attacked with fever, and all the general symptoms of an acute infection, and on the first, second or sometimes the third day of the illness the characteristic bubo appears. The common site is among the glands of the groin, for the reason that these glands receive the lymphatics from the lower limbs and from the lower portion of the trunk up to the level of the navel, a larger area than that drained by any other group of glands. Other sites for Bubo formation are the arm-pits, the glands of the neck, those about the angle of the jaw and below the chin, and very rarely the little gland on the inner side and just above the elbow, and the small glands behind the knee joint. In some cases, generally in association with Buboes in the groin, the deep glands of the abdomen can be felt to be enlarged.

These Plague Buboes are of different kinds and it is a matter of some importance in connection with treatment and the outlook as regards recovery, to recognise the type of Bubo present in each particular case. The common variety is the "softening bubo." The enlargement increases somewhat rapidly and the hard swelling gives place to a soft doughy mass around which is a limited amount of serous effusion into the subcutaneous tissues. If the patient lives till the fifth day or thereabouts this bubo will feel like a tightly stuffed cushion, or may give the experienced examiner the signs that the contents are of a fluid nature. On incision, pus and shreds of the disorganised gland will be evacuated, and under suitable treatment the cavity, though large, will heal up within a week or so. When these softening Buboes are allowed to rupture spontaneously a large foul cavity is produced; such are not unfrequently encountered among the poor, who have not received adequate attention during the stress of a plague epidemic.

Another variety of bubo obtains when the glands inflame and harden, the inflammation being so acute that the blood supply of the part is obstructed and the whole of the affected area sloughs out, leaving a large superficial ulcer of a very unpleasant appearance. These buboes are found where the inflamed glands are bound down beneath tense tissues, as in front of the ears and in the region of the groin. To this kind the term "indurated bubo" has been applied. Another variety the "edematous bubo" occurs in the neck and the arm-pit and in them the serous effusion into the tissues around the glands, present to a less extent in the common type is the essential feature. The whole arm-pit or the side of the neck may be distended by the accumulation of fluid under

the skin. It is an extremely distressing kind of bubo, as the pain is great and nearly all the patients die. Also there is a rare kind the "hard late bubo," which appears after about a fortnight in cases simulating typhoid fever, and lastly there are some soft buboes which at first and shrink with the rapid subsidence of the fever—the "shrinking bubo." The fever continues from the outset with slight remissions; it is generally about 103° to 104°, but it may rise to a great height from almost the initial rigor. On the third day the temperature tends to approach the normal, and almost immediately rises again. Should it rise to a point above that of the maximum temperature preceding the remission the outlook is bad; but in cases which are likely to do well it rises to a point which is less than that of the preceding maximum, and after about three days gradually falls to normal, with slight daily oscillations depending on the amount of the suppuration in the buboes and their local condition.

It is to be understood that this disease is of such great virulence to human beings, on account of the early appearance of the plague bacillus in the blood-stream, that there are many instances in which death occurs before the bubo has had time to undergo the changes described above or even to form. The more acute cases are also liable to be atypical in their mode of onset. Some are taken with a wild delirium in which they are likely to attack those about them; others suffer from vomiting of blood followed by rapid failure of the heart and death; pregnant women miscarry and practically all of them die; and lastly there are cases where the general and local symptoms are slight and yet failure of the heart may suddenly ensue within a few hours of the onset. These so-called "fulminant" cases are generally met with at the commencement of every epidemic; in some of the descriptions of medieval epidemics they seem to have been in the majority, and it is on account of these that plague epidemics appear so terrible to the occupants of the plague-stricken town. Fortunately, however, there is a large majority of cases which allow some scope for medical skill. The condition of the patient after the full development of the symptoms is always one which gives rise to great anxiety. The mental condition becomes dulled, which, while it mitigates considerably the distress of the sufferer, is nevertheless an indication of the action of the plague poison on the nerve centres. The eyes are sunken and often acutely congested. There may be cough, which is a bad sign as it indicates either a secondary pneumonia or the onset of an acute bronchitis, the direct result of the failure of the heart. If the latter progresses the breathing becomes more rapid, the pulse weak and almost uncountable at the wrist, the skin cold and clammy, and towards the end covered by profuse perspiration; finally, the breathing becomes irregular, and after several long-drawn gasps the patient breathes his last.

In other cases however improvement starts about the fourth day, the temperature gradually falls, and the mind clears; the bubo suppurates in due course and heals up, and the patient passes into a slow convalescence, but which is sometimes retarded by the formation of chronic

abscesses, boils, attacks of heart failure or of palpitation; or ulcers of the eyeball with infection of the whole globe and consequent loss of sight. Some recover with permanent mental enfeeblement, or persistent tremor of the limbs with difficulty in speaking with clearness.

### Septicæmic Plague.

This term is applied to certain forms of acute plague where buboes do not form, or where there is uniform but slight enlargement of glands in various parts of the body with symptoms of a general blood infection. The term is misleading, inasmuch as most cases of acute bubonic plague are really septicæmic from the outset. These cases are either acute, ending fatally about the third day or sooner; or are sub-acute, with symptoms simulating typhoid fever, ending fatally in about a fortnight. In the acute cases large dusky patches of blood-effusions beneath the skin, the so-called plague spots, are sometimes found; and there may be hemorrhages from the stomach or bowels.

### Pneumonic Plague.

In this variety the plague bacillus proliferates in the lung and causes rapid consolidation of large patches of the lung tissue scattered irregularly throughout the organs; with a considerable amount of œdema, so that the lungs are engorged with blood, are large and heavy, and the bronchial tubes filled with reddish frothy

fluid which contains the pure culture. The fever interference with respiration, death occurs from the second day. A curious fact about pneumonic plague is that in one such case is liable to give the same type.

### Treatment of the Disease.

No serum or antitoxin has so far value in diminishing the mortality of Much can, however, be done by medical treatment. Absolute rest is required and the patient should not even be allowed to sit up in bed. Drugs which act as heart stimulants are required almost from the outset, and frequently these have to be administered by the skin as well as the mouth. The buboes should be fomented till they soften, and incised as soon as fluid is formed. For the pneumonic condition the administration of oxygen gas gives relief. This can be obtained in India without much difficulty. Careful nursing is essential, and fluid nourishment must be given regularly in an easily assimilable form, and complications have to be met as they arise. As regards prophylaxis by means of Haffkine's Plague prophylactic which is manufactured in enormous quantities at the Bacteriological Government Laboratory at Parel it may be said that its use gives a threefold chance of escape from attack and a reduction of case mortality by fifty per cent.

## DENGUE FEVER.

Dengue fever, otherwise known as Dandy fever or Breakbone fever, is rather common in India and is generally present in the larger towns, but as it appears in manifold forms and various writers describe it differently, its identity is not always recognised; and, therefore, by many medical men is thought to be less common than it really is. On occasions it gives rise to very wide-spread epidemics. In 1902 there was an extensive epidemic on the eastern side of the Indian Peninsula, and since recently there has been a bad outbreak in Calcutta. It is more common during the rainy season.

The onset is abrupt, with fever, slight sore throat producing cough, rapidity of the pulse, sometimes a red rash which is so fugitive that it is often overlooked, and intense pain. These pains constitute the patient's chief complaint. They are generally pains in the bones, or in the small of the back, or in some of the joints either large or small. Sometimes there is no complaint of pain in the limbs, but there is intense pain behind the eyes. The fever lasts for three or four days, during which in rare cases there may be further symptoms due to the appearance of a pleurisy or even a pericarditis. Sometimes there is intense shooting pain into the little finger. Though the intensity of the symptoms may give a very serious aspect to the case, yet a fatal issue is almost unknown. After the four days of intense suffering the fever sub-

sides somewhat abruptly, and at about this time a second rash appears, most marked over the shoulders and neck, and on the backs of the arms, or else an universal rash. It is of a dark red colour, often very like the rash of scarlet fever, or it may be like that of measles. With its appearance the more severe symptoms subside. During convalescence the patient is much depressed, and the pulse remains unduly rapid. Sometimes also pain starts again in one of the joints, or he is crippled by stiffness of the back or of several of the joints. After a shorter or longer period, from two days to ten, a second attack of fever and pain comes on which runs the same course but as a rule less severe and prolonged; in very rare cases there is a third attack.

There is no drug which will cut short the disease. From its likeness to rheumatism the salicylates are generally used, and perhaps relieve the pains. This drug should be combined with an ordinary fever mixture: large doses of bromide should be given for the headache, and the excruciating pains must be treated with morphia.

It is often impossible to distinguish the malady from influenza until the appearance of the rash. It is believed that the poison is conveyed by the bites of a mosquito, and that this poison has characters which are analogous to the virus of Yellow Fever.

## CHOLERA.

This is one of the most important diseases of India, having been endemic therein for many hundreds of years. It is always present in the country, and sometimes extends over large districts generally from some crowded centre such as the site of a pilgrimage, from which it is dis-

persed over the country-side by the returning bands of pilgrims. The deaths in British India from this disease in 1910 numbered four hundred and thirty thousand, and in the following year three hundred and fifty four thousand. The disease is of special importance to the numerous

from collapse and returning from danger which the patient out of the case. It is a water-borne disease and the by the most common is the "comma bacillus" disease. Koch, so called from its shape when and failure, and stained. The dejecta of a person third way from the disease, when contamination of soil, are liable to get washed by the rains, and some water supply, which may become and source of almost unlimited infection. Such contaminated drinking water is rendered innocuous by boiling, or filtration through a Pasteur-Chamberland filter. The importance of Koch's discovery, therefore, lay in the recognition of the fact that the poison was essentially water-borne. It can also be conveyed by flies settling on food.

The disease has an incubation period of from two to seven days. After a premonitory diarrhoea with colicky pains lasting for half a day or longer, the nature of the illness is announced by violent purging and vomiting, the former having the peculiar character of rice-water. The poison may be so intense that death takes place before the purging appears, the so-called "cholera siccæ." In the common form collapse is early and marked, the extremities are blue and cold, the skin shrunken, the heart weak, the surface temperature below normal, though the temperature taken in the mouth shows high fever to be present. There is curious pinched expression of the face with deeply sunken eyes, and the patient endeavours to communicate his wishes or fears in a hoarse whisper. He is further distressed by painful cramps in the muscles of the calf and abdomen, and there is suppression of the functions of the kidneys. Death generally takes place in this the algid state. Should the patient survive he passes into the stage of reaction, the unfavourable symptoms disappearing and gradually passing into convalescence. In some of these cases which gave hopes of recovery there is a relapse, the conditions of the algid state reappearing and death taking place. It has recently been recognised as a cause of the dissemination of the disease, that patients who have recovered will continue to discharge the bacillus for many weeks.

The prevention of cholera lies in attention to water supplies, and in boiling and filtering as a matter of routine in Indian life. All the discharges from the sick should be treated with disinfectants, and soiled clothing and linen destroyed. People who have to tour in cholera-stricken districts, or who go on shooting excursions, or who find themselves in the midst of a cholera outbreak should undergo inoculation with Halkin's preventive vaccine. Two inoculations are required, the second being more intense in its effects. The temporary symptoms which may arise after the inoculation are sometimes severe, being always more marked than after inoculation against typhoid, but the protection afforded more than makes up for the temporary inconvenience endured.

During the cholera season the mildest cases of diarrhoea should be brought for treatment to a physician, as such persons are more liable than others to contract the disease.

Treatment mainly resolves itself into meeting the extreme collapse with stimulants and warmth. There is great temptation to administer opium, but in some cases this is not unattended with danger, and in others there is no capacity left in the patient for the absorption of drugs administered by the mouth. The mortality has, however, been reduced by the injection of saline fluid into the skin or directly into the veins, and also by the introduction of saline fluid of particular strength into the abdominal cavity.

#### Kala Azar.

This is a slowly progressive disease associated with great enlargement of the spleen and some enlargement of the liver, extreme emaciation, and a fever of a peculiar type characterised by remissions for short periods, and due to infection by a parasite of remarkable characters which have only recently been worked out. It is attended with a very high mortality, about 96 per cent., and has up to the present resisted all methods of treatment, although some patients appear to improve for a time, only in the majority of cases to relapse later.

It is endemic in Assam, from which it has invaded Bengal, and is now often seen in Calcutta. It is also fairly often met with in Madras, though it is said that the cases are imported ones. It is very rarely seen in Bombay, and then only in immigrants from infected localities, though there appears to be a mild endemic centre in Jabalpur in the Central Provinces; so it is likely to be more frequently met with on the western side of India. It has caused great mortality among the coolies on the tea-plantations of Assam, especially among the children, but under the recent measures of prophylaxis which have been put into force since knowledge has been acquired about its real nature and method of spread, the ravages of the disease are likely to be limited. It is very rare among Europeans and then almost entirely among those who have been long in India or who have been born and bred in the country.

Infection seems generally to start in the cold weather. There is fever with rigors, and progressive wasting and loss of energy. The temperature chart is a curious one, the fever showing two remissions during the twenty-four hours. Diarrhoea is common, especially during the later stages of the disease. The spleen enlarges early and is generally of enormous size producing bulging of the abdomen. A remarkable feature is the tendency to the formation of ulcers, which in many cases, especially in children, takes the form of a gangrenous ulceration of the mouth and cheek. Death usually occurs from some intercurrent inflammatory condition, often pneumonia.

The parasite is found in the spleen and liver during life, and can be obtained by puncture of these organs. As thus obtained it is a minute round body of special characters. In this state it is known as the Leishman-Donovan body from its discoverers. This small body has been cultivated by Leonard Rogers in suitable media and under low temperatures, and found to develop into a flagellated, that is tail-possession, organism. How this peculiar

organism develops outside the human host is not yet completely known. It is certainly a house-infection, which accounts for the manner in which whole families have been swept off, one member after another. Its progress has been stayed by moving families from their infected houses and burning down their former quarters. This and other facts connected with its spread, have suggested that the agent for conveying the poison from man to man is the common bed-bug, and

Patton has succeeded in de-late stage in this creature blood of the sick.

There is a severe form of ulcer on the skin known as "Delhi Boil" which organisms very similar to the Leishmanian Body were obtained many years ago. These bodies have also been cultivated from the human host and found to develop flagellated organism. The two parasites closely allied, are nevertheless distinct

Indian Education for not all

## DRUG CULTURE.

Two monographs on the cultivation of drugs in India, by Mr. David Hooper, of the Indian Museum, Calcutta, and by Mr. Puran Singh, of the Indian Forest Department, Dehra Dun, have lately been published. Mr. Hooper, in his paper, states that one-half of the drugs in the British Pharmacopoeia are indigenous to the East Indies, and nearly the whole of the rest could be cultivated or exploited. The following are given as those that could be grown in quantity and as worthy of the attention of cultivators and capitalists:

Belladonna, most of which is still imported, grows well in the Western Himalayas from Simla to Kashmir, the Indian-grown plant containing 0.4 to 0.45 per cent. of alkaloid.

Digitalis is quite acclimatised on the Nilgiris, growing there without any attention. The Madras Store Department obtains all its requirements from Ootacamund, and the leaf has been found equally active to that grown in England.

Henbane is native of the temperate Himalayas from 8,000 to 11,000 ft. It was introduced into the Botanic Gardens, Saharanpur, in 1840, and it has been steadily cultivated there up to the present time, and the products supplied to medical depots satisfy the annual demand.

Ipecacuanha has been raised with a small measure of success in the hilly parts of India, and it only requires care and attention to raise it in sufficient amount to make it commercially remunerative.

Jalap-root grows as easily as potatoes in the Nilgiris, and there is no reason why the annual requirements (about 1,000 lb.) for the medical stores of Bengal, Bombay and Madras should not be obtained from Ootacamund.

Mr. Puran Singh discusses the subject in the "Indian Forester" for March. He states that most of the drugs in the British Pharmacopoeia grow wild in India, and that there is already a large export trade for some of them. He adds however, that materials collected at random cannot be expected to fetch full prices, as they seldom come up to standard quality, and he adds: "The few drugs that are not indigenous to India could easily be made to grow in some part or other of this vast land. The great advantage accruing from the systematic cultivation of drugs is that a regular supply of genuine drugs of standard quality is assured. The variation in the quality of wild-grown drugs is sometimes a very serious drawback to finding

a profitable market for them. The quality of *Podophyllum Emodi* growing wild in India is an illustration in point. This plant was discovered by Sir George Watt in the year 1888, and now, even after twenty-four years, in which it has been shown to be identical with the American drug that is being employed for pharmaceutical purposes, it still remains unrecognized by the British Pharmacopoeia, which, as explained by the "Chemist and Druggist" some time ago, is solely due to the uncertainty which still exists as to its physiological activity.

Mr. Singh also points out that the Indian consumers of medicine depend mostly on herbs growing wild in the Forests, the more important of these probably numbering at least 1,000. This inland trade is very large; the possibilities in the Punjab only being put at Rs.50,00,000. He mentions saffron, liquorice, and salp as products exotic to India, whose cultivation in that country looks full of promise. Mr. Singh suggests that a complete survey be made of the extent of the inland trade in medicinal products found growing wild in Indian forests in order to arrive at the figures of annual consumption, and that the forest areas where the most important drugs grow should be preserved. Inquiries should be instituted as to the best methods of cultivation, and if need be, the means of extending the artificial propagation. It is to provide data to induce the private capitalist to embark on such enterprises that Mr. Singh advocates the formation of some body to go into the matter. He suggests that India is well worthy of attention by those in this country who are interested in extending the culture of drugs in the British Empire. The Forest Department has already begun the cultivation of Indian podophyllum-root in the Punjab, United Provinces, and the North-Western Frontier, and that several mounds of dried rhizome are sold annually for local consumption. Mr. Hooper also shows that a start has been made in regard to the cultivation of belladonna, henbane and digitalis. One of the principal difficulties to be overcome is to ensure a ready market, and there is also always the danger of overproduction to be considered.

## Manufacture of Quinine.

Government cinchona plantations were started in India in 1862 from seed introduced by Sir Clements Markham from South America, of which the plant is a native. There are two main centres, Darjeeling and the Nilgiri Hills. In both localities a portion of the area is owned by tea or coffee planters, and the bark they



from collapse and all species of cinchona are danger which the r India; namely, *Cinchona succout the case, p bark), C. calisaya and ledgeriana by the most alk), and C. officinalis (crown bark), the dietary, mucous species in Darjeeling is C. and failure, and in Southern India C. officinalis, third weid form is also largely grown and yields cece thod bark. At the Government factories dietary in cinchona febrifuge and quinine are made, and, thanks to these factories, practically no quinine is nowadays imported for Government purposes. Private imports of quinine amounted in 1911 to lbs. 128,119 valued at £72,984.*

One of the most far-reaching measures of modern times for the benefit of the health of the people of India has been Sir George King's system of having quinine, locally produced from cinchona, made up in 7-grain packets and sold (since 1896-7) for a quarter anna (one farthing) for every post office in India. This scheme has proved a commercial success, and has been of immense benefit to the inhabitants of fever-stricken tracts. In the year 1912-13, 10,694 lbs. of quinine were sold at the post offices.

### Cocaine in India.

The cocaine traffic in India, which has now attained to alarming dimensions, is of comparatively recent growth, though it is impossible to estimate how widespread it was in 1903 when the Bombay High Court for the first time decided that cocaine was a drug included within the definition of an intoxicating drug in the Bombay Abkari Act. Since that date the illegal sale of cocaine in India has largely increased and the various provincial excise reports bear witness to the spread of the "cocaine habit." The consumers of the drug, which is notoriously harmful, are to be found in all classes of society, and in Burma even school children are reported to be its victims; but in India, as in Paris, the drug is mostly used by prostitutes or by men as an aphrodisiac. Cocaine and its allied drugs are not manufactured in India but are imported from the continent, chiefly from the house of Messrs. E. Merck of Darmstadt. Restrictions on export have been under consideration for some time but as yet no international scheme devised to that end has been agreed upon. This is to be regretted, for according to a Press Note issued by the Government of Bombay in April, 1913, "the cocaine habit appears to be extending and, unless concerted measures are taken to cut off the supply of the drug at its source in Europe, it is not possible for a preventive staff in Bombay to do more than put, from time to time a temporary check on the nefarious traffic." Most of the cocaine that enters India is smuggled ashore by sailors—occasionally by officers—on the Austrian and Italian ships sailing from Trieste and Genoa. The chief ports of entry are Bombay, Calcutta, Karachi and Madras, and a small amount finds its way into British India through the Portuguese port of Goa. Great ingenuity is employed to bring the packets through the custom houses, as also in retailing the drug in small packets of one or two grains each:

but in spite of this many large captures have been made. The average seizure for the past two years in Bombay alone is about 1,300 ounces, and in Calcutta in the early part of 1913 a record seizure was made of 3,972 ounces. The cocaine seized is either given to hospitals throughout India or destroyed. It is no longer possible to buy cocaine at any betel nut seller's as it was ten years ago, but scores of cases in the police courts show that the retail trade is still very flourishing. High profits ensure the continuance of the trade. On the continent the retail price of the pure drug used to be about twelve shillings per oz., but, owing to seizures in India it has fallen considerably; in India the price is from Rs. 11 to Rs. 20 per oz. or even higher, and from the one grain packets (which are frequently adulterated) the retail dealer's profit may well be as much as Rs. 100 per oz. The law in regard to the possession of cocaine differs in the different provinces: in Bombay, where it is more stringent than elsewhere, the maximum penalty for all offences in regard to cocaine—viz., import, export, transport, possession and sale of cocaine and many of its synthetics—has been fixed, by Act XII of 1912, as follows: imprisonment for a term which may extend to one year or fine which may extend to Rs. 2,000 or both, and, on any subsequent conviction, imprisonment for a term which may extend to two years, or fine which may extend to Rs. 4,000 or both. In Bengal the maximum imprisonment awardable at present for importation or possession of cocaine is three months imprisonment, under the Excise Act, with or without a fine up to Rs. 1,000.

### Indian Tobacco.

The tobacco plant was introduced into India by the Portuguese about the year 1605. As in other parts of the world, it passed through a period of persecution, but its ultimate distribution over India is one of the numerous examples of the avidity with which advantageous new crops or appliances are adopted by the Indian agriculturist. Five or six species of *Nicotiana* are cultivated, but only two are found in India, namely, *N. Tabacum* and *N. rustica*. The former is the native of South or Central America and is the common tobacco of India. About the year 1820 experiments were conducted by the East India Company towards improving the quality of leaf and perfecting the native methods of curing and manufacturing tobacco. These were often repeated and gradually the industry became identified with three great centres: namely, (1) Eastern and Northern Bengal (more especially the District of Rangpur); (2) Madras, Trichinopoly, Dindigul, Coimbatore and Calicut in Southern India; and (3) Rangoon and Moulmein in Burma. Bengal is the chief tobacco growing Province, but little or no tobacco is manufactured there. The chief factories are near Dindigul in the Madras Presidency, though, owing to the imposition of heavy import duties on the foreign leaf used as a cigar wrapper, some cigar factories have been moved to the French territory of Pondicherry.

## Appointments to the Indian Service

Full details of the regulations governing appointments to the Indian Service are published in the India Office List. The more essential particulars, except as regards Service and Police,—of which fuller details are given elsewhere in this book—are given

### Indian Agricultural Service.

The appointments in the Indian Agricultural Service include those of Deputy Director of Agriculture, Agricultural Chemist, Economic Botanist, Mycologist, Entomologist, Professors of Agriculture, Chemistry and Botany at Agricultural Colleges, and the like. Some of these are included in the Imperial Department of Agriculture under the direct control of the Government of India, but the majority are included in the Departments of Agriculture of the several provinces of India. In some cases candidates will be appointed direct to these posts, but in most cases they will be appointed as supernumeraries, will undergo a further course of training in India in Indian agriculture, and will be appointed to posts, for which in the opinion of the Government they are considered suitable, on the regular establishment as vacancies occur. Appointments are made by the Secretary of State for India as occasion may require. Candidates must, as a rule, be not less than 23, nor more than 30 years of age. In selecting candidates for appointment, weight will be given to the possession of (a) a University degree in honours in science or the diploma of a recognised school of agriculture or other like distinction; (b) qualifications in a special science according to the nature of the vacancy to be filled; (c) practical experience. Importance is also attached to bodily activity and ability to ride, and selected Candidates have to undergo an examination by the Medical Board of the India Office as to their physical fitness for service in India.

The salary attached to posts in the Agricultural Service will ordinarily be

For the first year	Rs. 400 per mensem
" second year	430
" third year	460
" fourth and subsequent years	500 rising by annual increments of Rs. 50 a month to Rs. 1,000 a month.

Candidates who are required to undergo a further course of training in India under paragraph 1 above will be appointed on this scale of salary, commencing on a pay of Rs. 400. Where, for special reasons, a Candidate is recruited for direct appointment to one of the regular posts under paragraph 1, his initial pay will be determined with reference to the special qualifications on the length of European experience required for the appointment for which he is specially selected, but his subsequent increments of salary will be regulated by the foregoing scale. In addition to this scale of pay, officers filling appointments directly under the Government of India, as distinguished from appointments under Local Governments (but not including officers holding supernumerary posts, the post of Inspector-General, or the post of Director of the Pusa Institute) will be eligible for local allowances conditional on approved good work, and the Government reserves to itself the fullest discretion as to granting, withholding, or withdrawing them.

### Indian Civil Veterinary Department.

The officers of the Indian Civil Veterinary Department perform or supervise all official veterinary work in India, other than that of the Army, and are debarred from private professional practice in India. Their duties may be divided into three classes, under the following heads:—

- Educational work in veterinary colleges;
- Horse and mule breeding;
- Cattle disease and cattle breeding.

Appointments to this Department are made, as vacancies occur, by the Secretary of State for India. Candidates must not (except on special grounds to be approved by the Secretary of State) be over 26 years of age, and must

possess a diploma from the Royal College of Veterinary Surgeons. Evidence of a knowledge of bacteriology, and of capacity for carrying out original research, will be specially taken into account in estimating the claims of candidates. Good health, a sound constitution, and active habits are essential, and candidates must be certified by the Medical Board of the India Office to be physically fit for service in India.

Pay will be as follows:—On arrival in India Rs. 500 a month, rising by Rs. 40 each year to Rs. 1,100, which rate will continue from the beginning of the 16th to the end of the 20th year of service; after the beginning of the 21st year Rs. 1,200 a month.

### Ecclesiastical Establishments (Church of England.)

Appointments of Chaplains on Probation are made from time to time by the Secretary of State for India, as vacancies occur. Candidates for these appointments must be Priests who are between the ages of twenty-seven and thirty-four years, and have been for three years altogether in Holy Orders. Applications for nominations should be submitted to the Secretary of State.

A Chaplain will be on probation for three years (a); if confirmed in his appointment at the end of that period, he will be admitted as a Junior Chaplain.

The salaries of Chaplains are:—

Senior Chaplains, Rs. 10,200 per annum for five years, and then Rs. 12,000 per annum.

Junior Chaplains, Rs. 6,300 per annum for five years, and thereafter Rs. 8,160 per annum until promoted to be Senior Chaplains.

Chaplains on Probation, Rs. 5,760 per annum.

A Junior Chaplain becomes a Senior Chaplain after ten years' service, excluding the period of probation.

ing pay of Chaplains is regulated by the following scale:—  
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 danger which out the car  
 by the 23 years' service, with an  
 actual residence in India of 20  
 and years, including the period of  
 their probation .. .. 365 0 0

Per annum.  
 £ s. d.

On Medical Certificate.		£. s. d.
After 18 years' actual residence in India, including the period of probation .. ..	.. ..	292 0 0
After 13 years' ditto .. ..	.. ..	173 7 6
After 10 years' ditto .. ..	.. ..	127 15 0

### Ecclesiastical Establishments (Church of Scotland.)

The appointments of Chaplains of the Church of Scotland on probation are made from time to time by the Secretary of State for India, according as vacancies occur. Candidates for these appointments must have been licensed for three years and be under thirty-four years of age. Applications for nominations should be submitted to the General Assembly's Committee on Indian Churches along with testimonials based on a personal knowledge of the candidate's qualifications. Chaplains will be on probation for three years (a); if confirmed in their appointment at the end of that period, they will be admitted as Junior Chaplains.

The salaries of Chaplains are:—

Senior Chaplains, Rs. 10,200 per annum, and then Rs. 12,000 per annum.

Junior Chaplains, Rs. 6,360 per annum for five years, and thereafter Rs. 8,160 until promoted to be Senior Chaplains.

Chaplains on probation, Rs. 5,760 per annum.

A Junior Chaplain becomes a Senior Chaplain after 10 years' service, excluding the period of probation.

The retiring pay of Chaplains is regulated by the following scale:—

Per annum.  
 £ s. d.

After 23 years' service, with an actual residence in India of 20 years, including the period of probation .. ..	.. ..	365 0 0
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On Medical Certificate.

After 18 years' actual residence in India, including the period of probation .. ..	.. ..	292 0 0
After 13 years' ditto .. ..	.. ..	173 7 6
After 10 years' ditto .. ..	.. ..	127 15 0

### Educational Appointments.

The Indian Educational Service comprises those posts in the Educational Department to which appointments are made in England by the Secretary of State, and is thus distinguished from the Provincial Educational Services, which are recruited exclusively in India. It consists of two branches, the teaching, including Principalships and Professorships in the various Government Colleges and Head Masterships in certain High Schools; and the inspecting, including Inspectorships of Schools; but officers may be transferred at the discretion of Government from one branch to the other, and the conditions of pay and service are the same for both. It also includes certain special appointments, such as those of Superintendents of Schools of Art, for which special qualifications are required and special terms of engagement are prescribed. Officers of the teaching branch may be required to undertake duties in connection with the supervision of students in hostels or boarding houses, and with the direction of their studies and recreations. Appointments are made by the Secretary of State as occasion may require. Only laymen are eligible, candidates must as a rule be not less than 23, nor more than 30 years of age, but exceptions are sometimes made as regards the maximum limit only. Candidates must be British subjects, and must furnish evidence of having received a liberal education.

In selecting candidates for appointment, weight will be given to the possession of (a) a University degree in Honours, or equivalent distinction; (b) experience as a teacher; (c) qualifications in special subjects, depending on the nature of the vacancy to be filled. In selecting candidates for inspecting appointments, weight is given to linguistic talent, capacity for organisation and knowledge, practical or theoretical, of educational methods.

The salaries paid are as follows:—A newly appointed Inspector or Professor receives Rs. 500 a month, rising by annual increments of Rs. 50 a month to Rs. 1,000 a month. When this point has been reached, the increase of his emoluments depends upon his promotion, and takes the form of allowances ranging from Rs. 200 to Rs. 500, in addition to the salary of Rs. 1,000. There are at present 30 such allowances. There is in every Province a Director of Public Instruction. The posts of Director of Public Instruction are reserved for the Indian Educational Service so long as members of that Service can be found well qualified to fill them. Their pay differs in different Provinces:—

Three receive a salary of Rs. 2,000—100—2,500 a month.

Two receive a salary of Rs. 2,000 a month.

One receives a salary of Rs. 1,750—50—2,000 a month.

Two receive a salary of Rs. 1,500—100—2,000 a month.

One receives a salary of Rs. 1,250 rising to Rs. 1,500 a month.

Head Masters are appointed on an initial pay of Rs. 500, rising by annual increments of Rs. 50 a month to Rs. 1,000 a month, except in cases in which Local Governments may prefer to recruit on the scale of Rs. 500 a month, rising by annual increments of Rs. 50 a month to Rs. 750 a month. Head Masters are eligible for subsequent transfer to Inspectorships or, if qualified, professorships. In all cases, increments of salary are given for approved service only.

For the appointments dealt with above men only are eligible. There are, however, some posts in the Indian Educational Service which are open to women and these comprise appointments as Inspectresses of Girls' Schools, Principals

pals of Training Colleges, and occasionally Headmistresses of Schools. The salary attached to these appointments is ordinarily Rs. 400 a month, rising by annual increments of Rs. 20 a month to Rs. 500 a month.

#### TEMPORARY APPOINTMENTS.

The Secretary of State is sometimes requested by the Government of India to supply persons

to fill temporary vacancies in the Indian Educational Service, generally professorships in Colleges. Such appointments are made for not less than a university year (about nine months), with a prospect, in the case of thoroughly approved service, of future selection to fill either a temporary or a permanent appointment. The salary is Rs. 500 a month, rising by annual increments of Rs. 50 a month.

### Indian Forest Service.

The Secretary of State for India in Council makes appointments of Probationers for the Indian Forest Service, according to the numbers annually required.

Candidates must be not less than 19 but under the age of 22 years.

Candidates must have obtained a degree with Honours in some branch of Natural Science in a University of England, Wales or Ireland, or have passed the Final Bachelor of Science Examination in Pure Science in one of the Universities of Scotland. A degree in Applied Science will not be considered as fulfilling these conditions. Candidates will be required to produce evidence that they have a fair knowledge of either German or French.

The ordinary period of probation will be two years. During that time probationers will be required to pass through the Forestry course at one of the following Universities—Oxford, Cambridge or Edinburgh (subject to the arrangement of a suitable course)—becoming members of that University, if not so already; to obtain the Degree or Diploma in Forestry which it grants; and to satisfy such other tests of proficiency as may be deemed necessary.

During the vacations, the Probationers will, under the direction and supervision of the Director of Indian Forest Studies appointed by the Secretary of State for India in Council, receive practical instruction in such British and

Continental forests as may be selected for the purpose.

The Secretary of State for India in Council will make payments to each Probationer at the rate of £120 annually, not exceeding a total of £210.

Probationers who obtain a Degree or Diploma in Forestry, and also satisfy such other tests of proficiency as may be prescribed, will be appointed Assistant Conservators in the Indian Forest Department, provided they are of sound constitution and free from physical defects which would render them unsuitable for employment in the Indian Forest Service.

An Assistant Conservator of Forests will draw pay at the rate of Rs. 380 a month (equivalent to £304 a year when the rupee is at Rs. 4d.) from the date of his reporting his arrival in India.

After a service of not less than 20 years, a retiring pension not exceeding the following amounts:—

Years of Completed Service.	Scale of Pension. Sixtieths of Average Emoluments.	Maximum Limit of Pension.
20 to 24	30	Rs. 4,000 a year.
25 and above		Rs. 5,000 a year.

### Indian Geological Survey.

The Geological Survey Department is at present constituted as follows:—  
Monthly Salary.

	Rs.	Rs.	Rs.
1 Director .. .. .	2,000		
3 Superintendents .. .. .	1,000 rising by 80 to 1,400		
15 Assistant Superintendents:—			
For the first five years .. .. .	350	80	500
Thereafter .. .. .	500	50	1,000
1 Chemist .. .. .	500	50	1,000

Appointments to the Department are made by the Secretary of State for India. They will usually be made about July of each year, and the probable number of appointments will, if possible, be announced about two years in advance. The age of candidates should not exceed 25. Besides a good general education, a sound education in geology is essential: a

University degree and a knowledge of French or German will be regarded as important qualifications; and certificates of a high moral character will be required. Candidates must also have had one or two years' practical training in mines, or in technical laboratories, as may be required by the Government of India. First appointments are probationary for two years.

### India Office.

Vacancies in the clerical establishment of the Secretary of State for India are filled from among the successful candidates at the General Examinations (Class I. and Second Division), which are held from time to time by the Civil Service Commissioners for appointments in the Home Civil Service. The Examination for

Class I. Clerkships is the same as the open Competitive Examination for the Civil Service of India, the nature of which is shown in the Syllabus given on pages 221-223. Further particulars may be obtained upon application to the Secretary, Civil Service Commission, Burlington Gardens, London, W.

**Indian Public Works Department.**

The Secretary of State for India in Council makes appointments of Assistant Engineers in the Public Works Department of the Government of India.

Candidates must have attained the age of 21, and not attained the age of 24 years.

Candidates must produce evidence that they have (1) obtained one of the University degrees mentioned in Appendix I., or (2) passed the A.M.I.C.E. examination, or (3) obtained such diploma or other distinction in Engineering as may, in the opinion of the Selection Committee, be accepted as approximately equivalent to the degrees mentioned.

The Engineer Establishment of the Indian Public Works Department consists of a staff of engineers, military and civil, engaged on the construction and maintenance of the various public works undertaken by the State in India.

2. The permanent establishment of the Department is recruited from the following sources:—

- (1) Officers of Royal Engineers.
- (2) Persons appointed to the Imperial Service by the Secretary of State by selection from the United Kingdom.
- (3) Persons educated at the Government Civil Engineering Colleges in India, and appointed to the Provincial Services by the Government of India.
- (4) Occasional admission of other qualified persons.

The increments will be given for approved service only and in accordance with the rules of the Department.

Exchange compensation allowance will not be granted to future entrants.

Promotions above the grade of Executive Engineer are dependent on the occurrence of vacancies in the sanctioned establishment, and are made wholly by selection; mere seniority is considered to confer no claim to promotion.

3. The various ranks of the department are as follows:—

	Salary per annum (Imperial Service). Rs.
Chief Engineer, First Class .. ..	33,000
Second Class .. ..	30,000
Superintending Engineer, First Class ..	24,000
Second Class ..	21,000
Third Class ..	18,000
Executive Engineer, 20th year of service and following years .. ..	15,000
Executive Engineer, 19th year of service ..	14,400
18th " " " "	13,800
17th " " " "	13,200
16th " " " "	12,600
15th " " " "	12,000
14th " " " "	11,400
13th " " " "	10,800
12th " " " "	10,200
11th " " " "	9,600
Assistant Engineer, 10th " " " "	9,000
9th " " " "	8,400
8th " " " "	7,920
7th " " " "	7,440
6th " " " "	6,960
5th " " " "	6,480
4th " " " "	6,000
3rd " " " "	5,520
2nd " " " "	5,040
1st " " " "	4,560

**State Railways.**

The Secretary of State for India in Council will, from time to time as may be required, make appointments of Assistant Traffic Superintendent on Indian State Railways.

Candidates must possess one or other of the following qualifications, viz.:—

- (a) Not less than two years' practical experience of work in the Traffic Department of a British or Colonial Railway together with evidence of a sound general education.
- (b) A degree or diploma of any teaching University in the United Kingdom granted after not less than three years' study in that University, or a technical diploma or certificate recognized by the Secretary of State.

The establishment of the Superior Traffic Department of Indian State Railways consists of a staff of officers, military and civil, engaged on the various railways administered by the State in India. This establishment is recruited from the following sources:—

- (i) Officers of Royal Engineers;
- (ii) Persons appointed by the Secretary of State by selection from the United Kingdom;

(iii) Persons appointed in India;

(iv) Occasional admission of other qualified persons.

The various ranks of the Department are as follows:—

	Salary per annum. Rs.
Traffic Managers .. ..	24,000
Deputy Traffic Managers .. ..	18,000
District Superintendents:—	
Class II., Grade 1 .. ..	13,200
Grade 2 .. ..	12,000
Grade 3 .. ..	10,800
Grade 4 .. ..	9,600
Grade 5 .. ..	8,400
Assistant Superintendents:—	
Class III., Grade 1 .. ..	6,600
Grade 2 .. ..	5,400
Grade 3 .. ..	4,800
Grade 4 .. ..	3,600
Grade 5 .. ..	2,400-3,000

The establishments of the Superior Locomotive and Carriage and Wagons Departments of Indian State Railways consist of officers engaged on the various railways administered

by the State in India. These establishments are recruited from the following sources :—

- (i) Persons appointed by the Secretary of State by selection from the United Kingdom;
- (ii) Persons appointed in India;
- (iii) Occasional admission of other qualified persons.

The various ranks of the Departments are as follows :—

	Salary per annum
	Rs.
Locomotive Superintendents .. ..	24,000
Deputy Locomotive Superintendent ..	18,000
Carriage and Wagon Superintendents ..	18,000 or 21,000
Deputy Carriage and Wagon Superintendents .. ..	15,000
District Superintendents :—	
Class I., Grade 1 .. ..	13,200
„ „ Grade 2 .. ..	12,000
„ „ Grade 3 .. ..	10,800
„ „ Grade 4 .. ..	9,600
„ „ Grade 5 .. ..	8,400
Assistant Superintendents :—	
Class III., Grade 1 .. ..	6,600
„ „ Grade 2 .. ..	5,400
„ „ Grade 3 .. ..	4,800
„ „ Grade 4 .. ..	3,600
„ „ Grade 5 .. ..	2,400-3,000

### Telegraph Department

The Superior Establishment of the Indian Telegraph Department is engaged on the construction and maintenance of the various telegraph lines belonging to the Government of India, and in the supervision of the offices in connection therewith.

The Department is chiefly recruited from the United Kingdom. The various ranks of the Superior Establishment are as follows :—

	Maximum Salary per mensem.
	Rs.
Director-General .. ..	3,000
Deputy Director-General .. ..	2,000
Directors .. ..	1,800
Deputy Directors .. ..	1,600
Chief Superintendents, 1st Class ..	1,400
Chief Superintendents, 2nd class ..	1,250
Superintendents, 1st Grade .. ..	1,000
„ „ 2nd Grade .. ..	850
Assistant Superintendents, 1st Grade ..	700
„ „ 2nd Grade .. ..	550
„ „ 3rd Grade .. ..	450
„ „ 4th Grade .. ..	350

### His Majesty's Indian Army.

A certain number of appointments to the Indian Army are offered to Cadets of the Royal Military College, and a certain number to candidates from the Universities. All King's Cadets (British and Indian) and Honorary King's Cadets nominated by the Secretary of State for India in Council have the option, during their last term at the Royal Military College, of electing for appointment to the Unattached List for the Indian Army, or for appointment

to commissions in British Cavalry or Infantry. The appointments to the Unattached List for the Indian Army remaining after the claims of the King's Cadets and Honorary King's Cadets (Indian) have been satisfied are allotted in order of merit to Cadets who satisfy the requirements of the Regulations respecting admission to the Royal Military College, and who elect to compete for such appointments, at each final Examination at Sandhurst.

### King's India Cadetships.

Ten King's India Cadets are nominated each half-year from among the sons of persons who have served in India in the Military or Civil Service of His Majesty or of the East India Company. A Candidate is not eligible for nomination as a King's India Cadet if he be under 17 or over 19½.

A Candidate is not eligible for nomination and his claims will in no circumstances be considered until he has obtained (a) a Leaving Certificate or a Qualifying Certificate, as required by the Regulations for Admission to the Royal Military College, Sandhurst, in force prior to 1912; or (b) has qualified at the Army Entrance Examination; or (c) is prepared to attend the next examination. The fees of King's India Cadets at the Royal Military College are not payable by the State, except in cases where, after due inquiry, their pecuniary circumstances are ascertained to be such as to justify the payment.

### Honorary King's India Cadetships.

Three Honorary King's India Cadets are nominated annually by the Secretary of State for India. Such Cadets are appointed from—

- (a) The sons of officers of the Indian Army, who were killed in action, or who have died of wounds received in action within six months of such wounds having been received, or from illness brought on by fatigue, privation, or exposure, incident to active operations in the field before an enemy, within six months after their having been first certified to be ill.

- (b) The sons of officers of the Indian Army, who have obtained the brevet substantive rank of Major or Lieutenant-Colonel, and have performed long or distinguished service.

An Honorary King's Cadetship carries with it no pecuniary advantage.

### Queen Alexandra's Military Nursing Service for India.

The Nursing establishment is for duty with British officers and soldiers, and at present consists of :—

- 4 Lady Superintendents.
- 16 Senior Nursing Sisters.
- 71 Nursing Sisters.

The numbers in these grades are subject to alteration.

Nursing Sisters at the time of appointment must be over 27 and under 32 years of age. Candidates for the Service must have had at least three years' preliminary training and service combined in the wards of a British general hospital or hospitals of not less than 100 beds

in which adult male patients receive medical and surgical treatment, and in which a staff of Nursing Sisters is maintained.

The duration of a term of service, for all grades of lady nurses, is five years. A lady nurse who has been pronounced by a medical Board to be physically fit for further service in India, may be permitted to re-engage for a second and third term at the option of the Government, and again for a fourth term, or until the age of compulsory retirement, if in all respects efficient and if specially recommended by the Commander-in-Chief in India. But a lady nurse will not under any circumstances be permitted to remain in the service in the grade of Lady Superintendent beyond the age of 55 years, or in either of the other grades beyond the age of 50 years.

#### Rates of Pay.

(In addition to free quarters, fuel, light, and punkah-pullers.)

	Rs.	per mensem.
Lady Superintendent ..	300	"
Senior Nursing Sister over five years in grade ..	225	"
Senior Nursing Sister under five years in grade ..	200	"
Nursing Sister over five years in grade ..	200	"
Nursing Sister under five years in grade ..	175	;;

#### Royal Indian Marine.

All first appointments of executive officers in the Royal Indian Marine are made by the Secretary of State for India.

The limits of age for appointment to the junior executive rank, that of Sub-Lieutenant, are 17 and 22 years, and no candidate will be appointed who does not possess the full ordinary Board of Trade certificate of a Second Mate; certificates for foreign-going *steamships* will not be accepted.

#### PAY AND ALLOWANCES.

The present establishment of officers of the Royal Indian Marine and their allowances are as follows:—

32	Commanders	on pay ranging	
		per mensem.	
		from Rs 350 to Rs. 500, in	
		addition to staff or command	
		pay.	
		per mensem.	
72	Lieutenants	on	
		completing eight	
		years' seniority .	On Rs. 300.
	Lieutenants	on	
		completing six	
		years' seniority .	On Rs. 250.
	Lieutenants	on	
		completing	
		three years'	
		seniority ..	On Rs. 200.
	Lieutenants	under	
		three years'	
		seniority ..	On Rs. 150.
	Sub-Lieutenants ..	On Rs. 125.	
	Sub-Lieutenants ..	On Rs. 100.	

Total .. 104.

In addition, 3 Commanders and 8 Lieutenants are at present employed in the Marine Survey of India.

A certain number of Shore, Port, and Marine Survey appointments are usually reserved for officers of the Royal Indian Marine. The numbers so reserved and the allowances attached (in addition to pay of grade), are as follows:—

	Allowances
	per mensem.
	Rs.
4 Shore appointments ..	400—1000
16 Port appointments ..	320— 870
	per diem.
11 Marine Survey appointments ..	4—20

## Sterling Equivalents.

\* N.B.—In calculating the sterling equivalents of rupee salaries drawn by Europeans appointed in England to permanent service in India, it is necessary to bear in mind that in some cases Exchange Compensation Allowance is drawn in addition to salary. This allowance is at present at the rate of 4½ per cent. on the salary, subject to a maximum of Rs. 138-14-3 a month; but the rate is subject to alteration in the event of any material variation in the average rate of exchange between England and India.

The following table shows the approximate equivalent in sterling of the rupee salaries stated, (a) when Exchange Compensation Allowance is not granted, (b) when it is granted at the rate just mentioned:—

Rupces per Mensem.	Rupces per Annum.	(a) Equivalent without R. C. A.	Rupces per Mensem.	Rupces per Annum.	(a) Equivalent without R. C. A.	Rupces per Mensem.	Rupces per Annum.	(b) Equivalent with R. C. A.	Rupces per Mensem.	Rupces per Annum.	(b) Equivalent with R. C. A.	Rupces per Mensem.	Rupces per Annum.	(a) Equivalent without R. C. A.	Rupces per Mensem.	Rupces per Annum.	(b) Equivalent with R. C. A.	Rupces per Mensem.	Rupces per Annum.	(b) Equivalent with R. C. A.
100	1,200	80	85	1,020	552	1,600	19,200	1,280	2,900	34,800	1,360	2,900	34,800	1,280	2,900	34,800	1,360	2,900	34,800	1,360
125	1,500	100	106	1,272	595	1,700	20,400	1,360	3,000	36,000	1,445	3,000	36,000	1,360	3,000	36,000	1,445	3,000	36,000	1,445
150	1,800	120	127	1,524	637	1,800	21,600	1,440	3,100	37,200	1,530	3,100	37,200	1,440	3,100	37,200	1,530	3,100	37,200	1,530
175	2,100	140	149	1,776	680	1,900	22,800	1,520	3,200	38,400	1,615	3,200	38,400	1,520	3,200	38,400	1,615	3,200	38,400	1,615
200	2,400	160	170	2,028	722	2,000	24,000	1,600	3,300	39,600	1,700	3,300	39,600	1,600	3,300	39,600	1,700	3,300	39,600	1,700
250	3,000	200	212	2,532	765	2,100	25,200	1,680	3,400	40,800	1,785	3,400	40,800	1,680	3,400	40,800	1,785	3,400	40,800	1,785
300	3,600	240	255	3,036	807	2,200	26,400	1,760	3,500	42,000	1,870	3,500	42,000	1,760	3,500	42,000	1,870	3,500	42,000	1,870
350	4,200	280	297	3,540	850	2,300	27,600	1,840	3,600	43,200	1,951	3,600	43,200	1,840	3,600	43,200	1,951	3,600	43,200	1,951
400	4,800	320	340	4,044	893	2,400	28,800	1,920	3,700	44,400	2,031	3,700	44,400	1,920	3,700	44,400	2,031	3,700	44,400	2,031
450	5,400	360	382	4,548	1,020	2,500	30,000	2,000	3,800	45,600	2,111	3,800	45,600	2,000	3,800	45,600	2,111	3,800	45,600	2,111
500	6,000	400	425	5,052	1,105	2,600	31,200	2,080	3,900	46,800	2,191	3,900	46,800	2,080	3,900	46,800	2,191	3,900	46,800	2,191
550	6,600	440	467	5,556	1,190	2,700	32,400	2,160	4,000	48,000	2,271	4,000	48,000	2,160	4,000	48,000	2,271	4,000	48,000	2,271
600	7,200	480	510	6,060	1,275	2,800	33,600	2,240	5,000	60,000	2,351	5,000	60,000	2,240	5,000	60,000	2,351	5,000	60,000	2,351



## The Indian Civil Service.

In the early years of the eighteenth century the East India Company was still little more than a body of traders. The genesis of the Indian Civil Service is to be sought in the modifications which the Company underwent as it found itself year by year more involved in the government of the country with which it was trading. It was gradually realised that neither the pay nor the training of the Writers, Factors and Merchants of the Company was adequate to the administrative work which they were called on to perform. As a result this work was often indifferently done, and corruption was rife. To Lord Cornwallis is due the credit of having reorganised the administrative branch of the Company's service, in accordance with three main principles from which there has been hitherto no deviation. These were that every civil servant should covenant neither to engage in trade nor to receive presents, that the Company on their side should provide salaries sufficiently handsome to remove the temptation to supplement them by illegitimate means, and that, in order that the best men might be attracted the principal administrative posts under the Council should be reserved for members of the Covenanted Civil Service as it was called. The first of these principles is embodied not only in the covenant which every member of the service still has to sign on appointment, but also in the "Government Servants' Conduct Rules," which are applicable to every civil department, however recruited. As regards the second, the scale of salaries originally prescribed was so handsome that it has not yet been considered expedient to undertake any general revision of it. The list of reserved posts remains, too much the same as in 1793, though certain modifications have been introduced to meet Indian aspirations.

At first nominations to the service were made by the Directors, but this right was withdrawn by Act of Parliament in 1853, and since 1855 appointments have been open to public competition, all natural-born subjects of the Crown being eligible. The age-limits and other conditions of examination have varied considerably from time to time, but at present candidates are examined between the ages of 22 and 24. At first young officers were sent straight to their appointments on recruitment, but in 1800 Lord Wellesley established a college at Fort William for their preliminary training. This was not a success and in 1805 a college at Haileybury was substituted, and for 53 years nominees underwent a two years' training there before proceeding to India. At present a year's course at a British University is prescribed, and at the close of this year there is a further examination. Failure to pass this means final loss of appointment, and seniority in the service is determined by combining the result of the open competition and this final compulsory examination.

The Statute of 1793 (33 Geo. cap. 52) modified in 1861, sets forth the list of offices reserved for members of the Indian Civil Service. It includes among others the offices of secretaries

and under-secretaries to governments, commissioners of revenue, Civil and Sessions Judges, Magistrates and Collectors\* of Districts (in the regulation provinces) and joint and assistant Magistrates and Collectors. In the non regulation provinces, many of the above posts are held by military officers. In addition to these reserved posts there are many other appointments which the Indian Civilian can hold. He is not, however, debarred from permanent appointment as Governor-General or Governor, the highest office he can attain being those of Lieutenant-Governor and Member of the Viceroy's Council.

Despite the complete eligibility of natives of India, and despite the numbers of Indians who now seek their education in England, comparatively few have succeeded in obtaining appointments by open competition. On the 1st of April 1913 only 46 of the 1,319 civilians on the cadre were natives of India. In 1870 an important Act (33 Vict. cap. 23) was added to the statute-book which allowed the appointment of "natives of India of proved merit and ability" to any of the offices reserved by law to members of the Covenanted Civil Service, such officers were known as Statutory or Uncovenanted Civilians. This method of appointment was dropped in 1880, and facilities were afforded to Indians for promotion through the ranks of the Provincial Service.

The young civilian, on joining his appointment in India, is attached to a district as assistant to the Collector. He is given limited magisterial powers, and after passing examinations in the vernacular and in departmental matters he attains to full magisterial powers and holds charge of a revenue subdivision. During this period he is liable to be selected for the judicial branch and become an Assistant Judge. In course of time promotion occurs and he becomes either Collector and District Magistrate, or District and Sessions Judge; this promotion does not generally occur before he has served for at least ten years. The District Judge is the principal civil tribunal of the district and wields extensive appellate powers. In his capacity as Sessions Judge he tries the more important criminal cases of the district.

The Collector is not merely chief magistrate and revenue officer of his district. He also forms a court of appeal from subordinate magistrates, supervises municipalities and local boards, is chief excise officer and district registrar, and in general represents Government in the eyes of the people. The Collector and his assistants are expected to travel over their charges; touring rules vary in different provinces, but in Bombay the Collector spends four and his assistants seven months in the year on tour.

By the time the highest grades in the offices of Collector or Judge are reached the Civilian has, as a rule, nearly completed the 25 years which are necessary before he can retire. Should he elect to continue in service, there

\* The Chief Revenue Officer of a District is known as the Collector in the "regulation provinces" of Bengal, Malras, Bombay, Agra Deputy Commissioner, and his assistants are

known as the Collector in the "regulation provinces" of Bengal, Malras, Bombay, Agra Deputy Commissioner, and his assistants are Assistant Commissioners.

are still posts to which he can look forward for promotion. On the one hand, he may become a Commissioner or even a Member of Council, and on the other, there are Judicial Commissionerships and seats on High Court Benches. Such is the normal career of a Civilian, but this, by no means, completes the account of his prospects, for nearly one-fourth of the service is, as a rule, employed in posts—some reserved and some not—out of the regular line. A number of civilians are employed in the Imperial and Provincial Secretariats, some are in political employ in the Native States, others hold responsible positions in the Customs, Police, Salt, Post Office and other departments, or supervise big municipalities and public trusts.

The Civilian may retire after 25 years' service and in the ordinary way must retire on reaching the age of 55. He contributes throughout his service to a pension which is fixed, regardless of whether he has risen to be a Lieutenant-Governor, or has remained at the foot of the ladder. Every Civilian, moreover, married or single, subscribes to an annuity fund which provides for the widows and orphans of deceased members of the service.

The conditions of recruitment, training, pay, leave, pension and other matters affecting the Indian Civil Service are at present under enquiry by the Royal Commission, of which Lord Islington is President. Special attention is being paid to the question of the feasibility of increasing facilities for the admission of natives of India to the service and the report of the Commission is awaited with considerable interest.

### Public Services Commission.

In July, 1912, it was announced that the king had been pleased to approve the appointment of a Royal Commission to examine and report upon the Public Services in India. The Royal Commission is constituted as follows:—  
*Chairman*.—The Right Hon. Lord Islington, K.C.M.G.

The Earl of Ronaldshay, M.P.

Sir Murray Hammick, K.C.S.I., C.I.E., Indian Civil Service.

Sir Theodore Morison, K.C.I.E., Member of the Council of India.

Sir Valentine Chrol.

Frank George Sly, Esq., C.S.I., Indian Civil Service.

Mahadev Bhaskar Chaulai, Esq., C.S.I., Member of the Governor of Bombay's Executive Council.

Gopal Krishna Gokhale, Esq., C.I.E., Member of the Viceroy's Legislative Council.

Walter Culley Madge, Esq., C.I.E., Member of the Viceroy's Legislative Council.  
Abdur Rahim, Esq., Judge of the Madras High Court.

James Ramsay Mac Donald, Esq., M.P.  
Herbert Albert Laurens Fisher, Esq., Fellow and Tutor of New College, Oxford.

### The Terms of Reference are as follows:—

To examine and report upon the following matters in connexion with the Indian Civil Service, and other civil services, Imperial and Provincial:—

- (1) The methods of recruitment and the systems of training and probation;
- (2) The conditions of service, salary, leave, and pension.
- (3) Such limitations as still exist in the employment of non-Europeans and the working of the existing system of division of services into Imperial and Provincial;

and generally to consider the requirements of the Public Service, and to recommend such changes as may seem expedient.

**Work of the Commission.**—The Royal Commission visited India in the cold weather of 1912-13, and toured extensively in India, including Burma, confining their attention mostly to hearing the evidence of and relating to the Indian Civil Service. They subsequently sat in London and in October, 1913, again left for India to enquire into 28 Services other than the Indian Civil and the Provincial Services. They assembled first at Delhi on November 3rd, and examined Imperial officers and witnesses from the United Provinces, the Punjab and the North-West Frontier Province. They then assembled at Calcutta in the middle of December, to hear witnesses from Bengal, Bihar and Orissa, and Burma.

Early in February the Royal Commission will go to Madras, and will complete the tour at Bombay, where witnesses from Western India and the Central Provinces will be heard. In order that adequate time may be given for dealing with the numerous technical points arising in respect of the various Services, the Commission will sit in two sections, each specialising as regards those points on its own list of Services, but there will be ample consideration of all important matters by the full Commission, and there will be no division of the Commission regarding the four more important Services, namely, the Medical, Educational, Public Works and Railways.

The Commission is expected to return to England for consideration of its report early in April.

## THE INDIAN MEDICAL SERVICE.

The Medical Service under the control of the Government of India consists of some seven hundred and sixty-eight medical men recruited in England by competitive examination; and has as its primary duty the care of the native troops and of the British Officers, and their families, attached to them. But in the course of rather more than a century and a half other duties and responsibilities have accrued to it, so that there are in addition the provision of medical aid to Civil Ser-

vants and their families, the administration of the civil hospitals of the large towns, and the supervision of the numerous small dispensaries provided either by the Government or private charity for the inhabitants of the larger villages. Moreover the Service provides for the sanitary control of large areas, dealing with the sanitation of towns, protection of water supplies and the prevention of epidemic disease. It is also represented in the Native States by the Residency Surgeon,

and in Persia by the Medical Officers to the British Consulates. The Jail Department is also administered in great part by Indian Medical Officers, generally in the dual capacity of Medical Officer and Superintendent; and up to quite recently the Officers in the Mints have been recruited from members of the medical profession. Lastly the Service provides the men who are engaged in original research on diseases of tropical importance at the Bacteriological Laboratories which have arisen in India during the last fifteen years, and others who as Professors at the large medical schools have had the task of creating an indigenous medical profession which will make permanent throughout the Indian Empire the civilising influence of Western Medicine.

This remarkable combination of duties and responsibilities in a single Service has slowly evolved from the system, initiated in quite early days by the old East India Company, of providing "Chirurgeons" from England, on the nomination of the Board of Directors in London, for the care of the people and soldiers in the Indian "Factories", and on the ships trading with the East. Besides these men the Company maintained several medical services, including those of St. Helena, the West Coast of Sumatra, Prince of Wales Island, and the China Coast. The Surgeons on the Company's Indiamen were frequently utilised for emergent work in India, as in the case of the Mahratta War of 1780 and other military operations of that time, for duty with troops, and sometimes to fill vacancies occurring among those who would now be styled "civil surgeons."

**Organisation.**—The Indian Medical Service practically dates from the year 1764 when the scattered medical officers serving in India were united into one body; later this was divided into the three medical "Establishments" of Bengal, Madras, and Bombay. In 1766 the Medical Service was divided into two branches, military and civil, the latter being regarded as primarily army medical officers, lent temporarily for civil duties, in which they formed a reserve for the Indian Army, and were consequently liable to recall at any time. This position was confirmed by the Council of Lord Cornwallis in 1788; and has been in existence ever since with great advantage to the military authorities in times of military stress. In 1898 the officers of the Service were given military rank, and since 1906 all the names have been borne on one list, though men on entering the service are allowed to elect a Presidency in which they will serve on entering the Civil Department.

The Service was thrown open to Indians by the India Act of 1853, the first competitive examination being held in January 1855, when the list was headed by a Bengalee student who subsequently attained distinction. It was calculated by Lt.-Col. Crawford, I. M. S., (the talented historian of the Service) that from January 1855 to the end of 1910, eighty-nine men of pure Indian extraction had entered the Service. The proportion now shows signs of yearly increase. The total number of Indians at present in the Service is a little more than five per cent. of the whole; while, of the successful candidates during the

past five years, 17.6 per cent. have been men born and bred in the country.

**Method of Entry.**—Entrance into the Service is now determined on the results of competitive examinations held twice a year in London, the Regulations regarding which, and the rates of pay, rules for promotion and pension relating thereto, may be obtained on application to the Military Secretary at the India Office. Candidates must be natural-born subjects of His Majesty, of European or East Indian descent, of sound bodily health, and, in the opinion of the Secretary of State for India in Council, in all respects suitable to hold commissions in the Indian Medical Service. They may be married or unmarried. They must possess, under the Medical Acts in force at the time of their appointment, a qualification registrable in Great Britain and Ireland. No candidate will be permitted to complete more than three times. Candidates for the January examination in each year must be between 21 and 28 years of age on the 1st February in that year, and candidates for the July examination must be between 21 and 28 years of age on the 1st August.

The candidate will be examined by the Examining Board in the following subjects, and the highest number of marks obtainable will be distributed as follows:—

- |   |              |
|---|--------------|
| (1) Medicine, including Therapeutics .. ..          | 1,200 Marks. |
| (2) Surgery, including diseases of the eye .. ..    | 1,200 "      |
| (3) Applied Anatomy and Physiology .. ..            | 600 "        |
| (4) Pathology and Bacteriology .. ..                | 900 "        |
| (5) Midwifery and Diseases of Women and Children .. | 600 "        |
| (6) Materia Medica, Pharmacology and Toxicology ..  | 600 "        |

**N.B.**—The Examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside.

Having gained a place at the entrance examination, the successful candidates will be commissioned as Lieutenants on probation, and will be granted about a month's leave. They will then be required to attend two successive courses of two months each at the Royal Army Medical College, and at Aldershot respectively.

Officers appointed to the Indian Medical Service will be placed on one list, their position on it being determined by the combined results of the preliminary and final examinations. They will be liable for military employment in any part of India, but with a view to future transfers to civil employment, they will stand posted to one of the following civil areas:—(1) Madras and Burma; (2) Bombay, with Aden; (3) Upper Provinces, i.e., United Provinces, Punjab and Central Provinces; (4) Lower Provinces, i.e., Bengal, Bihar and Orissa and Assam.

The allocation of officers to these areas of employment will be determined upon a consideration of all the circumstances, including as far as possible the candidate's own wishes;

The whole course lasts for four months, after which the duly gazetted Lieutenants proceed to India, and for the first years of their service are attached to native regiments in any part of the country. The doctor is an officer of the regiment, as was the case in the old days of the Army Medical Department. Of late years it has been proposed to form the members of the Service into a corps on the lines of the British Medical Service, by forming station hospitals for native troops, thereby releasing the doctor from regimental life. This reform appears to have fallen through for the present, but is likely to be brought into operation within a very few years. Several appointments in the Civil Department are now reserved for Indians recruited in the country.

**Organisation.**—The Head of the Service is the Director General, who is an official of the Government of India and its adviser on medical matters. He is also concerned with questions of promotion of officers to administrative rank, and of the selection of men for admission to the civil department. Attached to his office and under his general supervision is the Sanitary Commissioner with the Government of India, who is to have the control of the new Sanitary Service, a department which is undergoing enlargement and re-arrangement. In each Presidency or Province there is a local head of the civil medical service and medical adviser of the local administration, who is either a Surgeon General, or an Assistant Surgeon General, or an Inspector General of Hospitals, or the Medical Officer in Charge of the Civil Hospital. The medical service in each province consists of the Sanitary Branch and the purely professional. The former is composed of Sanitary Commissioners of Districts, who by keeping large tracts of country under observation are in a position to

advise their respective governments of the existence of epidemics, and on the proper methods of dealing with them and of preventing their spread. It is, however, through the Civil Surgeon that the visitor to India will come in contact with the Service. This official is something more than a general practitioner as he is expected to be the leading medical and surgical authority in a large district consisting of millions or more of souls. Owing to the various experience obtained in India by the members of the Civil Medical Department, this official is generally a man of the highest professional attainments, especially so in the case of those senior men holding appointments in the larger towns. His duties are to give medical aid to the civil servants and their families, and to administer the hospitals which have been provided by Government in each headquarter town. In many cases too he will have the additional charge of the local jail, and be the Sanitary adviser of the Municipality. Accustomed to meet the most serious emergencies of his profession, and to rely entirely on his own skill and judgement, the Civil Surgeon in India has given to the Indian Medical Service a reputation for professional efficiency which cannot be excelled by any other public medical service. Travellers in India falling sick within call of any of the larger towns can therefore rely on obtaining the highest professional skill in the shape of the ordinary Civil Surgeon of the I. M. S. There have lately been signs that the popularity of the medical service of India is waning in the medical schools of the United Kingdom, and consequently there is a suspicion that a class of man is now entering it of a somewhat lower type than that which has made the Service famous. It is to be hoped that the Indian Government will act with perspicuity in a matter of such great public importance.

**Pay and Allowance.**—The following are the monthly rates of Indian pay drawn by officers of the Indian Medical Service when employed on the military side.

Rank.	Unemployed Pay.	Grade Pay.	Staff Pay.	In Officeing Medical Charge of a Regiment.	In Permanent Medical Charge of a Regiment.
	Rs.	Rs.	Rs.	Rs.	Rs.
Lieutenant .. .. .	420	350	150		
Captain .. .. .	475	400	150	425	500
„ after 5 years' service .. .. .	475	450	150	475	550
„ after 7 years' service .. .. .	..	500	150	525	600
„ after 10 years' service .. .. .	..	550	150	575	650
Major .. .. .	..	650	150	625	700
„ after 15 years' service .. .. .	..	750	150	725	800
Lieutenant-Colonel .. .. .	..	900	350	825	900
„ „ after 25 years' service .. .. .	..	900	400	1,075	1,250
„ „ specially selected for increased pay.	..	1,000	400	1,100	1,300
				1,200	1,400

**Pensions and Half-Pay.**—Officers are allowed to retire on pension on completing 17 years' service, the amount they receive varying with the precise number of years they have served. The lowest rate for 17 years' service is £300 per annum, and the rate for 30 years £700 per annum. The increases in pension for each additional year's service over 17 are somewhat higher in the last 5 than in the first 8 of the 13 years between the shortest and longest periods of pensionable service. Service for pension reckons from date of first commission, and includes all leave taken under the rules quoted. Additional pensions for wounds and injuries received in action or in the performance of military duty are awarded to officers of the Indian Medical Service on the same terms as to combatant officers of the Indian Army. All officers of the rank of lieutenant-colonel and major are placed on the retired list on attaining the age of 55 years; the greatest age to which any officer can serve being 62. The claims to pensions of widows and families of officers are treated under the provisions of such Royal Warrant regulating the grant of pensions to the widows and families of British officers as may be in force at the time being. The widows and families of officers are also entitled to pension under the Indian Service Family Pension Regulations for the benefits of which all officers must, as a condition of their appointment, subscribe from the date of their arrival in India, except in the case of natives of India, for whom it is optional.

Principal Civil Appointments.	Approximate Number of Appointments in each Class.	Salary per Mensem.			
		When held by a Lieutenant Colonel.	When held by a Major.	When held by Captain.	When held by Lieutenant.
		Rs.	Rs.	Rs.	Rs.
Inspectors-General of Civil Hospitals ..	6	2,250-2,500			
Sanitary Commissioner with Government of India.	1	2,000-2,500			
Inspectors-General of Prisons .. ..	8	1,500-2,000			
Principals of Medical Colleges .. ..	5	1,650-1,800	1,200-1,300		
Professorial Appointments .. ..	32	1,500-1,650	1,050-1,150	800-950	750
Sanitary Commissioners .. ..	8	1,250-1,800			
Deputy Sanitary Commissioners .. ..	13	1,450-1,600	1,000-1,100	750-900	700
Bacteriological Appointments .. ..	11	1,500-1,600	1,050-1,150	700-900	60
Superintendents of Central Lunatic Asylums	6	1,400-1,550	1,050-1,150	700-900	550
Superintendents of Central Gaols .. ..	31	1,300-1,550	850-1,150	600-750	550
Civil Surgeoncies (First Class) .. ..	37	1,300-1,450	850-950	600-750	550
Civil Surgeoncies (Second Class) .. ..	171	1,200-1,350	750-850	500-650	450
Probationary Chemical Examiner .. ..	1	.....	.....	600-750	550
Officers deputed to Plague Duty .. ..	..	1,450	1,000-1,100	750-900	700

(For salaries of Chief Officers, see pages 270-274).

# Warrant of Precedence in India.

(Brought up to 1 January, 1913.)

VICTORIA, by the Grace of God of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith, Empress of India,—

To all to whom these presents shall come :

WHEREAS it hath been represented unto Us that it is advisable that the rank and precedence of persons holding appointments in the East Indies as regulated by Our Royal Warrant, dated the 18th day of October, 1876, should be altered, We do therefore hereby declare that it is Our will and pleasure that in lieu of the table laid down in Our said recited Warrant, the following table be henceforth observed with respect to the rank and precedence of the persons hereinafter named, viz. :—

1. Governor-General and Viceroy of India.
2. Governors of Madras, Bombay and Bengal.
3. President of the Council of the Governor-General.
4. Lieutenant-Governor when in his own territories.
5. Commander-in-Chief in India.
6. Lieutenant-Governor.
7. Chief Justice of Bengal.
8. Bishop of Calcutta, Metropolitan of India.
9. Ordinary Members of the Council of the Governor-General.
10. Commander-in-Chief of Her Majesty's Naval Forces in the East Indies.
11. Chief Justice of a High Court other than that of Bengal.
12. Bishops of Madras and Bombay.
13. Ordinary Members of Council in Madras, Bombay and Bengal.
14. General Officers Commanding the Northern and Southern Armies; Chief of the General Staff.
15. Chief Commissioners of the Central Provinces and Assam, Residents at Hyderabad and in Mysore, and Agents to the Governor-General in Rajputana, Central India, and Baluchistan; Executive Members of the Council of the Lieutenant-Governor of Bihar and Orissa; the Agent to the Governor-General and Chief Commissioner of the North-West Frontier Province. [NOTE.—When within their own jurisdiction these officers take precedence of those mentioned in Article 14].
16. Puisne Judges of a High Court.
17. Chief Judge of a High Court.
18. Military Officers above the rank of Major-General.
19. Additional Members of the Council of the Governor-General for making Laws and Regulations; Chairman of the Railway Board.
20. Bishops of Lahore, Rangoon, Nagpur and Lucknow.
21. Secretaries to the Government of India, Joint Secretary to the Government of India in the Public Works Department; and Members of the Railway Board.
22. Commissioner in Sind.
23. Judges of a High Court, Recorder of Rangoon and Judicial Commissioners, Burma.
24. Chief Secretaries to the Governments of Madras and Bombay; Chief Commissioner of Delhi.

25. Major-Generals, Members of a Board of Revenue, Commissioners of Revenue and Customs, Bombay; Financial Commissioners, Punjab and Burma; the Inspector-General of Irrigation; and the Director-General, Indian Medical Service.

26. Judicial Commissioners, including Additional Judicial Commissioners of Oudh, the Central Provinces, and Sind.

27. Additional Members of the Councils of the Governors of Madras, Bombay and Bengal for making Laws and Regulations, Members of the Legislative Council of a Lieutenant-Governor.

28. Vice-Chancellors of Indian Universities.

## FIRST CLASS.

29. Members of the Indian Civil Service of 30 years' standing.

30. Advocate-General, Calcutta.

31. Comptroller and Auditor-General.

32. Commissioners of Divisions, the Superintendent of Port Blair, and Residents, Political Agents, and Superintendents drawing Rs. 2,000 a month and upwards (not being Collectors or Deputy Commissioners of British Districts), within their respective charges; the Revenue and Judicial Commissioners in Baluchistan, within Baluchistan and the Agency Territories.

33. Chief Secretaries to Local Governments other than those of Madras and Bombay.

34. Surveyor-General of India, Directors-General of the Post Office, of Telegraphs in India and of Railways, Chief Engineers, first class, the Directors of Railway Construction and Railway Traffic, Accountants-General, Military and Public Works Departments, Director, Royal Indian Marine, and Manager, North-Western Railway.

35. Bishops (not territorial) under license from the Crown.

36. Archdeacons of Calcutta, Madras and Bombay.

37. Brigadiers-General; Consuls-General.

38. Commissioners of Divisions; the Revenue and Judicial Commissioners in Baluchistan when in Kalat or Las Bela or elsewhere without the limits of his charge.

39. Commissioner of Northern India Salt Revenue, Opium Agents, Benaras and Bihar, and Director, Central Criminal Intelligence Department.

40. Secretaries and Joint Secretaries to Local Governments, and Private Secretary to the Viceroy.

## SECOND CLASS.

41. Members of the Indian Civil Service of 23 years' standing and Colonels; Consuls.

42. Military Secretary to the Viceroy.

43. Judicial Commissioners of the Hyderabad Assigned Districts and Baluchistan; the Superintendent of Port Blair; Residents, Political Agents, and Superintendents drawing Rs. 2,000 a month and upwards (not being Collectors or Deputy Commissioners of British Districts).

44. Inspector-General of Forests in India, Director of the Geological Survey, and Director-General of Education in India; Sanitary Commissioner with the Government of India.

45. Standing Counsel to the Government of India.

46. Directors of Public Instruction, and Inspectors-General of Police and Prisons under Local Governments, and Accountants-General.

47. Survey Commissioner and Director of Land Records and Agriculture, Bombay; Commissioners of Settlements; and Controllers of Military Accounts.

48. Chief or Senior Civil Secretary to a Local Administration.

49. Chief Engineers, second and third classes; Deputy Surveyor-General; Deputy Director-General of Telegraphs in India, and Director-in-Chief, Indo-European Telegraph Department, and Secretary to the Railway Board.

50. Divisional, and District and Sessions Judges, Collectors and Magistrates of Districts; Deputy Commissioners of Districts; Deputy Superintendent of Port Blair; and the Chief Officer of each Presidency Municipality; within their respective charges; Officers in charge of Zoh, Quetta-Pishin, and Thal-Chotiali Districts throughout their respective charges.

51. Archdeacons of Lahore, Lucknow, Rangoon, and Nagpur.

52. Deputy Secretaries to the Government of India and Director-General of Commercial Intelligence.

53. The Senior Chaplains of the Church of Scotland in Bengal, Madras, and Bombay.

54. Remembrancers of Legal Affairs and Government Advocates under Local Governments; Chief Conservators of Forests.

55. Officers in the First Class Graded List of Civil Offices not reserved for Members of the Indian Civil Service; Controller of Printing and Stationery.

### THIRD CLASS.

56. Members of the Indian Civil Service of 18 years' standing and Lieutenant-Colonels.

57. The Deputy Director, Royal Indian Marine.

58. The Assistant Director, Royal Indian Marine.

59. Commanders and Inspectors of Machinery, Royal Indian Marine.

60. Political Agents and Superintendents drawing less than Rs. 2,000 a month (not being Collectors or Deputy Commissioners of British Districts) within their own charges; Political Agent in Kalat; District Judges in Lower Burma and Judge of the Small Cause Court, Rangoon, within their respective charges.

61. Secretaries to Local Administrations other than those already specified; the First Assistant to the Agent to the Governor-General in Baluchistan; First Assistants to the Residents at Hyderabad and Mysore, and to the Agents to the Governor-General in Rajputana and Central India.

62. Consulting Engineers to the Government of India for Railways; Consulting Architect and Chief Inspector of Explosives.

63. Private Secretaries to Governors.

64. Military Secretaries to Governors.

65. Administrators-General.

66. Sanitary Commissioners under Local Governments; Postmasters-General; the Comptroller, Post Office; and Conservators of Forests, first grade,

67. Directors of Public Instruction, Inspectors-General of Police and Prisons under Local Administrations, Comptrollers and Deputy Auditors-General, and Deputy Director, Central Criminal Intelligence Department.

68. Managers of State Railways other than the North-Western Railway; Chairmen of the Port Trust, Bombay, and Rangoon; and Chairman of the Port Trust, Calcutta.

69. Vice-Chairman of the Port Trust, Calcutta; Directors of Traffic and Construction, Indian Telegraph Department; Directors of Telegraphs, first class; Examiners of Accounts, Public Works Department, first class; Officers of the Superior Revenue Establishment of State Railways, first class, first grade; Superintending Engineers, Public Works Department, first class; Superintendents of the Survey of India Department, first grade.

70. Inspectors-General of Registration and Directors of Land Records and Agriculture, and Excise Commissioners under Local Governments.

71. Senior Chaplains other than those already specified.

72. Sheriffs within their own charges.

73. Officers in the Second Class Graded List of Civil Offices not reserved for Members of the Indian Civil Service; Political Agents and Superintendents in Baluchistan drawing less than Rs. 2,000, and Political Agents in Harauti and Tonk, when outside their respective charges (unless their Army rank or standing in the Civil Service gives them a higher place).

### FOURTH CLASS.

74. Members of the Indian Civil Service of 12 years' standing, and Majors; Vice-Consuls; District Judges in Lower Burma and Judge of Small Cause Court, Rangoon (outside their respective charges).

75. Lieutenants of over 8 years' standing, and Chief Engineers of the Royal Indian Marine; Chief Accountant, Office of the Director of Ordnance Factories.

76. Government Solicitors.

77. Inspectors-General of Registration, Sanitary Commissioners, and Directors of Land Records and Agriculture under Local Administrations; Civil Engineer, Adviser to the Director of Ordnance Factories.

78. Officers in the Third Class Graded List of Civil Offices not reserved for Members of the Indian Civil Service; Deputy Accountant, Office of the Director of Ordnance Factories.

The entries in the above table apply exclusively to the persons entered therein, and, while regulating their relative precedence with each other, do not apply to the non-official community resident in India, the members of which shall take their place according to usage.

Officers in the above table will take precedence in order of the numbers of the entries. Those included in one number will take precedence *inter se* according to the date of entry into that number.

When an officer holds more than one position in the table, he will be entitled to the highest position accorded to him.

Officers who are temporarily officiating in any number in the table will rank in that number below permanent incumbents.

All officers not mentioned in the above table, whose rank is regulated by comparison with rank in the army, to have the same rank with reference to civil servants, as is enjoyed by Military Officers of equal grades.

All other persons who may not be mentioned in this table, to take rank according to general usage, which is to be explained and determined by the Governor-General in Council in case any question shall arise.

Nothing in the foregoing Rules to disturb the existing practice relating to precedence at Native Courts, or on occasions of intercourse with Natives, and the Governor-General in Council to be empowered to make rules for such occasions in case any dispute shall arise.

All ladies to take place according to the rank

herein assigned to their respective husbands, with the exception of wives of Peers, and of ladies having precedence in England independently of their husbands, and who are not in rank below the daughters of Barons, such ladies to take place according to their several ranks, with reference to such precedence in England, immediately after the wives of Members of the Council of the Governor-General.

Given at Our Court at Windsor this tenth day of December, in the year of Our Lord One thousand eight hundred and ninety-eight, and in the sixty-second year of Our Reign.

By Her Majesty's Command.

(Signed) GEORGE HAMILTON.

**Supplementary Graded List of Civil Offices not Reserved for Members of the Indian Civil Service Prepared Under the orders of the Governor-General in Council.**

**\*FIRST CLASS—(No. 55 of the Warrant).**

Assay Master of the Mint, Calcutta and Bombay.

Chief Judges of Presidency Courts of Small Causes.

Commissioners of Police, Calcutta, Madras, Bombay, and Rangoon.

Controller of Printing and Stationery.

Deputy Comptroller-General.

Director-General of Archaeology.

Director-General of Statistics.

Director of the Botanical Survey of India.

Inspector-General of Agriculture in India.

Masters of the Mint, Calcutta and Bombay.

Meteorological Reporter to the Government of India.

Superintendent of Revenue Survey, Madras.

Superintendent, Trigonometrical Surveys.

**\*SECOND CLASS—(No. 73 of the Warrant).**

Adviser on Chinese Affairs in Burma.

Agent General in India for the British Protectorates in Africa under the Administration of the Foreign Office.

Chief Collector of Customs, Burma.

Chief Constructor of the Royal Indian Marine Dockyard at Bombay.

Chief Inspector of Mines in India.

Chief Presidency Magistrates.

Chief Superintendents of the Telegraph Department.

Collector of Customs and Salt Revenue, Sind.

Collectors and Magistrates of Districts; and Deputy Commissioners of Districts and of Settlements.

Conservators of Forests, 2nd and 3rd Grades.

Deputy Accountants-General under Local Governments.

Deputy Directors of Telegraphs.

Deputy Inspectors-General of Police.

Deputy Superintendents of Port Blair.

Directors of the Persian Gulf Section, and of the Persian Section of the Indo-European Telegraph Department.

Director of Telegraphs, 2nd, 3rd and 4th Classes.

Divisional and District and Sessions Judges. Examiners of Accounts, Public Works Department, 2nd and 3rd Classes.

Government Astronomer, Madras.

Government Emigration Agents at Calcutta for British Guiana and Natal, and for Trinidad, Fiji, Jamaica, and Mauritius.

Imperial Bacteriologist.

Inspector of Mines to the Government of India.

Librarian, Imperial Library.

Officers in charge of the Records of the Government of India.

Officers of the Indian Educational Service, and of the graded Educational Service drawing Rs. 1,250 a month and upwards.

Officers of the Superior Revenue Establishment of State Railways, 1st Class, 2nd and 3rd Grades.

Principal of the Mayo College at Ajmere.

Principal of the Rajkumar College at Rajkot.

Reporter on Economic Products.

Superintendent of the Royal Botanical Gardens, Calcutta.

Superintendents, Geological Survey of India.

Superintendents of Revenue Survey and Assessment, Bombay.

Superintendents of the Survey of India Department, 2nd Grade.

Superintending Engineers, Public Works Department, 2nd and 3rd Classes.

Under Secretaries to the Government of India

**\*THIRD CLASS—(No. 78 of the Warrant).**

Agricultural Chemist.

Assistant Directors of Dairy Farms.

Assistant Inspector-General of Forests.

Assistant Secretaries to the Government of India.

Chief Chemical Examiner, Central Chemical Laboratory, Nainital.

Collector of Stamp Revenue, Superintendent of Excise Revenue, and Deputy Collector of Land Revenue, Calcutta.

Commander of the steamer employed in the Persian Gulf Section of the Indo-European Telegraph Department.

Constructors of the Royal Indian Marine



Dockyards at Bombay and Kidderpore.  
 Deputy Administrator-General, Bengal.  
 Deputy Collector of Salt Revenue, Bombay.  
 Deputy Commissioner of Northern India Salt Revenue.  
 Deputy Commissioners of Police, Calcutta and Bombay.  
 Deputy Commissioners of Salt, Abkari and Customs Department, Madras.  
 Deputy Conservators of Forests drawing Rs. 800 a month and upwards.  
 Deputy Director of Land Records and Agriculture, Madras and Burma.  
 Deputy Director of the Imperial Forest School, Dehra Dun.  
 Deputy Directors of Revenue Settlements and Deputy Superintendents of Revenue Surveys, Madras.  
 Deputy Postmasters-General of the 1st, 2nd and 3rd grades.  
 Deputy Superintendents, Geological Survey of India.  
 Deputy Superintendents, Survey of India Department.  
 District Superintendents of Police drawing Rs. 800 a month and upwards.  
 Engineer and Electrician of the Persian Gulf Section of the Indo-European Telegraph Department.  
 Examiners of Accounts, Public Works Department, 4th class, 1st and 2nd grades.

Executive Engineers, Public Works Department, 1st and 2nd Grades.  
 Inspector-General of Railway Mail Service.  
 Judge of the City Civil Court, Madras.  
 Judges of Presidency Courts of Small Causes; and First Judge of the Small Cause Court, Rangoon.  
 Manager of the Cordite Factory, Aruvankad.  
 Officers of the Indian Educational Service and of the graded Educational Service, drawing less than Rs. 1,450 a month, but more than Rs. 1,000 a month.  
 Officers of the Superior Revenue Establishments of the State Railways, Second Class, 1st and 2nd Grades.  
 Paleontologist, Geological Survey of India.  
 Presidency Magistrates.  
 Protector of Emigrants and Superintendent of Emigration, Calcutta.  
 Public Prosecutor in Sind.  
 Registrars to the High Courts and to the Chief Court, Punjab.  
 Sub-Deputy Opium Agents drawing Rs. 800 a month and upwards.  
 Superintendent of the Indian Museum.  
 Superintendent of Land Records and Agriculture in Sind.  
 Superintendents of Stamps and Stationery.  
 Superintendents, Telegraph Department, 1st and 2nd Grades.

### SALUTES IN INDIA.

The following is the official table of salutes in Indian Territories—a term which includes all the waters of India within three miles of the coast. "Indian seas," within which some of the salutes are to be given, extend from the North-West entrance of the Straits of Malacca to Cape Comorin, excepting Ceylon, and from Cape Comorin to Aden, including the Maldivé and Laccadive Islands, and the Persian Gulf.

Persons.	No. of Guns.
Imperial Salute .. .. .	101
The King and Emperor when present in person .. .. .	101
Members of the Royal Family .. .. .	31
Royal Standard and Royal Salute .. .. .	31
Viceroy and Governor-General in India .. .. .	31
Independent Asiatic Sovereigns .. .. .	21
Other Foreign Sovereigns .. .. .	21
Members of their Families and their Standards .. .. .	21
Ambassadors .. .. .	19
Governors of Presidencies .. .. .	17
The President of the Council of India .. .. .	17
Governor-General of Portuguese Settlements in India .. .. .	17
Governor of Pondicherry .. .. .	17
Governors of His Majesty's Colonies .. .. .	17
Lieutenant-Governors of Provinces in India .. .. .	15
Field-Marshal or Admirals of the Fleet .. .. .	17
Commander-in-Chief in India .. .. .	17
Commander-in-Chief of His Majesty's Naval Forces .. .. .	15
Generals and Admirals, or their Flags .. .. .	15

Members of Council .. .. .	15
Plenipotentiaries and Envoys .. .. .	15
Lieut.-Governors of His Majesty's Colonies .. .. .	15
Vice-Admirals, Lieut.-Generals, or their Flags .. .. .	13
Agents to the Viceroy and Governor-General .. .. .	13
Agent to the Governor of Bombay in Kathiawar .. .. .	13
Residents .. .. .	13
Chief Commissioners of Provinces, and Commissioner of Sind .. .. .	13
Rear-Admirals & Major-Generals, or their Flags .. .. .	11
Political Agents and Charges d'Affaires .. .. .	11
Commodores of the first-class, and Brigadier-Generals .. .. .	9
The Portuguese Governor of Damau .. .. .	9
The Governor of Diu .. .. .	9
Return salutes to Foreign Men-of-war .. .. .	..
Return salutes to Captains of the Navy, and Naval Officers of inferior rank .. .. .	7

### Salutes to Chiefs.

#### Salutes of 21 guns.

Baroda. The Maharaja (Gaekwar) of.  
 Hyderabad. The Nizam of.  
 Mysore. The Maharaja of.

#### Salutes of 19 guns.

Bhopal. The Begam (or Nawab) of.  
 Gwalior. The Maharaja (Sindhia) of.  
 Indore. The Maharaja (Holkar) of.  
 Jammu and Kashmir. The Maharaja of.  
 Kalat. The Khan (Wah) of.  
 Kolhapur. The Maharaja of.

Mewar (Udaipur). The Maharana of.  
Travancore. The Maharaja of.

*Salutes of 17 guns.*

Bahawalpur. The Nawab of.  
Bharatpur. The Maharaja of.  
Bikaner. The Maharaja of.  
Bundi. The Maharao Raja of.  
Cochin. The Raja of.  
Cutch. The Rao of.  
Jaipur. The Maharaja of.  
Karauli. The Maharaja of.  
Kota. The Maharao of.  
Marwar (Jodhpur). The Maharaja of.  
Patiala. The Maharaja of.  
Rewa. The Maharaja of.  
Touk. The Nawab of.

*Salutes of 15 guns.*

Alwar. The Maharaja of.  
Banswara. The Maharawal of.  
Bhutan. The Maharaja of.  
Datia. The Maharaja of.  
Dewas (Senior Branch). The Raja of.  
Dewas (Junior Branch). The Raja of.  
Dhar. The Raja of.  
Dholpur. The Maharaj Rana of.  
Dungarpur. The Maharawal of.  
Idar. The Maharaja of.  
Jaisalmer. The Maharawal of.  
Khalpur. The Mir of.  
Kishangarh. The Maharaja of.  
Orchha. The Maharaja of.  
Partabgarh. The Maharawat of.  
Sikkim. The Maharaja of.  
Sirohi. The Maharao of.

*Salutes of 13 guns.*

Benares. The Raja of.  
Cooch Behar. The Maharaja of.  
Jaora. The Nawab of.  
Rampur. The Nawab of.  
Tippura. The Raja of.

*Salutes of 11 guns.*

Ajaigarh. The Maharaja of.  
Baconi. The Nawab of.  
Bhavnagar. The Thakur Sahib of.  
Bijawar. The Maharaja of.  
Cambay. The Nawab of.  
Chamba. The Raja of.  
Charkhari. The Maharaja of.  
Chhatarpur. The Raja of.  
Dhrangadhra. The Raj Sahib of.  
Faridkot. The Raja of.  
Gondal. The Thakur Sahib of.  
Janjira. The Nawab of.  
Jhabua. The Raja of.  
Jhalawar. The Raj-Rana of.  
Jind. The Maharaja of.  
Junagadh (or Junagarh). The Nawab of.  
Kahlur (Bilaspur). The Raja of.  
Kapurthala. The Maharaja of.  
Mandi. The Raja of.  
Manipur. The Raja of.  
Morvi. The Thakur Sahib of.  
Nabha. The Maharaja of.  
Narsingharh. The Raja of.  
Navanagar (or Nawanager). The Jam of.  
Palanpur. The Diwan of.  
Panna. The Maharaja of.  
Porbandar. The Rana of.  
Pudukkottai (or Pudukottai). The Raja of.  
Rachanpur. The Nawab of.

Rajgarh. The Raja of.  
Rajpipla. The Raja of.  
Radam. The Raja of.  
Sailana. The Raja of.  
Samthar. The Raja of.  
Sirmur (Nahan). The Raja of.  
Sitamau. The Raja of.  
Suket. The Raja of.  
Tehri (Garhiwal). The Raja of.

*Salutes of 9 guns.*

Ali Rajpur. The Raja of.  
Balasinor (or Vadasinor). The Nawab (Babi) of.  
Bansda. The Raja of.  
Baraundha. The Raja of.  
Bariya. The Raja of.  
Barwani. The Rana of.  
Chhota Udepur (or Mahun). The Raja of.  
Dharampur. The Raja of.  
Dhol. The Thakur Sahib of.  
Fadthli (Shukra). The Sultan of.  
Hisipaw (or Thibaw). The Sawbwa of.  
Karond (Kalahandi). The Raja of.  
Kengtung (or Kyaington). The Sawbwa of.  
Kilchipur. The Rao of.  
Kishn and Socotra. The Sultan of.  
Lahej (or Al Haura). The Sultan of.  
Limri. The Thakur Sahib of.  
Lunawara (or Lunavada). The Raja of.  
Malhar. The Raja of.  
Malir Kotla. The Nawab of.  
Möng Nai. The Sawbwa of.  
Nagod. The Raja of.  
Palitana. The Thakur Sahib of.  
Rajkot. The Thakur Sahib of.  
Sachin. The Nawab of.  
Savantvadi. The Sar Desai of.  
Shehr and Mokalla. The Sultan of.  
Sunth. The Raja of.  
Vankaner (or Wankaner). The Raj Sahib of.  
Wadhwan (or Vadwan). The Thakur Sahib of.  
Yawnghe (or Nyaunggye). The Sawbwa of.

**Personal Salutes.**

*Salutes of 21 guns.*

Gwalior. Honorary Major-General His Highness Maharaja Sir Madho Rao Sindhia Bahadur, G.C.S.I., G.C.V.O., A.D.C., LL.D., Maharaja of.  
Jaipur. Honorary Major-General His Highness Maharajadhiraja Sir Sawai Madho Singh Bahadur, G.C.S.I., G.C.I.E., G.C.V.O., LL.D., Maharaja of.  
Kolhapur. His Highness Sir Shahu Chhatrapati Maharaj, G.C.S.I., G.C.I.E., G.C.V.O., LL.D., Maharaja of.  
Mewar (Udaipur). His Highness Maharaja-dhiraja Maharana Sir Fateh Singh Bahadur, G.C.S.I., G.C.I.E., Maharana of.  
Travancore. His Highness Sri Maharaja Raja Sir Bala Rana Varma Bahadur, G.C.S.I., G.C.I.E., Maharaja of.

*Salutes of 19 guns.*

Cochin. His Highness Raja Sri Sir Rama Varma, G.C.S.I., G.C.I.E., Raja of.  
Mysore. Her Highness Maharani Kempa Nanjammanni Avaru Vanivilas, C.I. of.  
Nepal. Honorary Major-General His Excellency Maharaja Sir Chandra Shumshere Jung Bahadur Rana, G.C.B., G.C.S.I., G.C.V.O.; D.C.L., Prime Minister, Marshal of.

*Salutes of 17 guns.*

Jodhpur. Honorary Major-General His Highness Maharaja Bahadur Sir Pratab Singh, G.C.S.I., G.C.V.O., K.C.B., A.D.C., Regent of Orchha. His Highness Maharaja Mahindra Sawai Sir Partap Singh Bahadur, G.C.S.I., G.C.I.E., Maharaja of.

*Salute of 13 guns.*

Palanpur. His Highness Nawab Sir Sher Muhammad Khan Zorawar Khan, G.C.I.E., Diwan of.

*Salutes of 11 guns.*

Barwanl. His Highness Rana Ranjit Singh of. Bhor. His Highness Shankar Rav Chinnaji, Pant Sachiv of.

Lahor (or Al Haura). His Highness Sir Ahmad Fadhli, K.C.S.I., Sultan of.

Maler Kotla. His Highness Ahmad Ali Khan Bahadur, Nawab of.

Shehr and Mokalla. His Highness Sultan Ghalib-bin-Awadth Al-Kayti, Sultan of.

*Salutes of 9 guns.*

Kanker. Maharajadhiraja Komal Deo, of. Las Bela. Mir Kamal Khan, Jam of.

Loharu. Nawab Sir Amir-ud-din Ahmad Khan Bahadur, G.C.I.E., of.

Mudhol. Mehrban Malojirao Vyankatrao Raje Ghorpade, alias Nana Saheb, of.

**Local Salutes.***Salutes of 21 guns.*

Bhopal. The Begam (or Nawab) of.

Gwalior. The Maharaja (Sindhia) of.

Indore. The Maharaja (Holkar) of.

Jammu and Kashmir. The Maharaja of.

*Salutes of 5 guns.*

The Sheikh of Koweit.

The Sheikh of Bahrain.

The Sheikh of Abu Thabl.

*Salutes of 3 guns.*

The Sheikh of Debal.

The Sheikh of Shirgah.

The Sheikh of Afghan.

The Sheikh of Ula-el-Kawain.

The Sheikh of Ras-al-Kheima.

**Local Personal Salutes.**

These are fired on the termination of an official visit.

*Salute of 13 guns.*

His Excellency the Govr. of Bushire.

*Salutes of 12 guns.*

The Sheikh of Mohammerah.

The Sheikh of Koweit.

*Salute of 11 guns.*

The Sheikh of Bahrain.

*Salutes of 5 guns.*

Eldest son of the Sheikh of Mohammerah.

Eldest son of the Sheikh of Koweit.

*Salutes of 5 guns.*

The Govr. of Mohammerah.

The Govr. of Bunder Abbas.

The Govr. of Lingah.

*Salute of 3 guns.*

Eldest son of the Sheikh of Bahrain.

**SALARIES OF CHIEF OFFICERS.**

The following are the tables of salaries sanctioned for the Chief Officers of the Administration of India. The tables are liable to variation, and it should be noted that the pay of members of the Indian Civil Service is subject to a deduction of 4 per cent. for subscription towards annuity.

	Pay per Annum Rs.
Viceroy and Governor-General .. .. .	2,50,800
Private Secretary to Viceroy .. .. .	24,000
Military Secretary and Aide-de-Camp to Viceroy .. .. .	18,000
Surgeon to Viceroy .. .. .	14,400
Commander-in-Chief of the Forces in India .. .. .	1,00,000
Military Secretary to Commander-in-Chief in India .. .. .	18,000
Members (6) of the Governor-General's Council .. .. .	80,000
President, Railway Board .. .. .	60,000 or 72,000
2 Members, Railway Board .. .. .	48,000
Secretaries to the Government of India in the Army and Public Works and Legislative Departments .. .. .	42,000
Secretaries to the Government of India in the Finance, Foreign, Home, Revenue and Agriculture, and Commerce and Industry Departments .. .. .	48,000
Secretary to the Government of India in the Education Department .. .. .	36,000
Joint Secretary .. .. .	30,000
Comptroller and Auditor-General .. .. .	42,000
2 Accountants-General, Class I .. .. .	33,000
2 " " " II .. .. .	30,000
4 " " " III .. .. .	27,000
1 Commissioner of Northern India Salt Revenue .. .. .	30,000
1 Director-General of Posts and Telegraphs .. .. .	36,000 to 42,000
4 Postmasters-General .. .. .	21,000 to 24,000
6 " " " .. .. .	18,000 to 21,000
1 Director, Geological Survey of India .. .. .	24,000
Deputy Secretaries to the Government of India in the Finance and Foreign Departments .. .. .	27,000

	Pay per Annum. Rs.
Deputy Secretaries to the Government of India in the Legislative and Home Departments .. .. .	24,000
Superintendent of Port Blair .. .. .	30,000 to 36,000
1 Chief Commissioner of Delhi .. .. .	36,000
1 Director, Criminal Intelligence .. .. .	36,000
1 Deputy Director, Criminal Intelligence .. .. .	18,000 to 24,000
Inspector-General of Forests .. .. .	31,800
Surveyor-General, Survey of India .. .. .	36,000
1 Chief Inspector of Mines in India .. .. .	24,000
1 Inspector-General of Agriculture in India .. .. .	21,000 to 27,000
1 Director-General, Indian Medical Service .. .. .	36,000
1 Sanitary Commissioner with the Government of India .. .. .	24,000
1 Director-General of Archaeology in India .. .. .	20,400
1 Administrator-General of Bengal .. .. .	26,400
1 Director-General of Commercial Intelligence .. .. .	24,000
1 " Indian Observatories .. .. .	18,000 to 24,000
Controller of Stationery and Printing .. .. .	18,000 to 27,000
Governors of Madras, Bombay, and Bengal .. .. .	1,20,000
Private Secretaries to Governors of Madras, Bombay, and Bengal .. .. .	18,000
Surgeons to Governors of Madras, Bombay, and Bengal .. .. .	12,000
Military Secretary and Aide-de-Camp to Governors of Madras, Bombay, and Bengal .. .. .	12,000
Bishop of Calcutta .. .. .	45,980
Bishop of Madras .. .. .	25,600
Bishop of Bombay .. .. .	25,600
Chief Justice of Bengal .. .. .	72,000
Chief Justices of Madras, Bombay, and the North-Western Provinces .. .. .	60,000
Puisne Judges of the High Courts of Calcutta (15), Madras (7), Bombay (7), and the North-Western Provinces (6) .. .. .	48,000
Chief Judge of the Chief Court, Punjab .. .. .	48,000
" " " Burma .. .. .	48,000
Judges of the Chief Court, Punjab (5), and Burma (4), except Chief Judges .. .. .	42,000
Political Residents, 1st class .. .. .	48,000
" " " 2nd class .. .. .	33,000
Officers on time scale .. .. .	5,10' to 28,800

### Provincial Salaries.

*N.B.*—Acting and other allowances are not included in the salaries shown.

**Bengal.**

3	Members of Council .. .. .	64,000
1	Member of the Board of Revenue .. .. .	45,000
5	Commissioners of Divisions .. .. .	35,000
1	Chief Secretary to Government .. .. .	40,000
3	Secretaries to Government .. .. .	33,000
3	Under Secretaries to Government .. .. .	12,000
1	Excise Commissioner .. .. .	27,000
1	Chairman of Corporation of Calcutta .. .. .	12,000
1	Deputy Ditto .. .. .	18,000
11	Collectors of Customs, Calcutta .. .. .	27,000
12	Magistrates and Collectors, 1st grade .. .. .	27,000
13	" " " 2nd " .. .. .	21,600
14	" " " 3rd " .. .. .	18,000
17	Joint Magistrates and Deputy Collectors, 1st grade .. .. .	10,800
17	" " " 2nd " .. .. .	8,400
-	Assistant Magistrates and Collectors .. .. .	4,800 to 6,000
3	District and Sessions Judges, 1st grade .. .. .	36,000
13	" " " 2nd " .. .. .	30,000
15	" " " 3rd " .. .. .	24,000
1	Chief Judge, Presidency Courts of Small Causes .. .. .	24,000
4	Judges " " " " .. .. .	{ 12,000, 13,500 15,600 and 16,800
1	Advocate General .. .. .	48,000
1	Solicitor to Government .. .. .	60,000
2	Registrars, High Court .. .. .	20,400 and 22,500
1	Inspector-General of Police .. .. .	30,000 to 36,000
	Director of Public Instruction .. .. .	24,000 to 30,000

								Pay per Annum. Rs.
<b>Bihar and Orissa.</b>								
2	Lieutenant Governor	..	..	..	..	..	..	1,00,000
1	Members of the Board of Revenue	..	..	..	..	..	..	42,000
1	Chief Secretary to Government	..	..	..	..	..	..	36,000
2	Secretaries to Government	..	..	..	..	..	..	27,000
3	Under Secretaries to Government	..	..	..	..	..	..	12,000
5	Commissioners	..	..	..	..	..	..	35,000
7	Magistrates and Collectors, 1st grade	..	..	..	..	..	..	27,000
10	" " 2nd "	..	..	..	..	..	..	21,600
10	" " 3rd "	..	..	..	..	..	..	18,000
10	Joint Magistrates and Deputy Collectors, 1st grade	..	..	..	..	..	..	10,800
9	" " 2nd "	..	..	..	..	..	..	8,400
2	Assistant Magistrates and Collectors	..	..	..	..	..	..	4,800 to 6,000
2	District and Sessions Judges, 1st grade	..	..	..	..	..	..	36,000
5	" " 2nd "	..	..	..	..	..	..	30,000
5	" " 3rd "	..	..	..	..	..	..	21,000
1	Inspector-General of Police	..	..	..	..	..	..	30,000 to 36,000
1	Director of Public Instruction	..	..	..	..	..	..	24,000
<b>Assam.</b>								
1	Chief Commissioner	..	..	..	..	..	..	56,000
2	Commissioners	..	..	..	..	..	..	35,000
2	Secretaries to Chief Commissioner	..	..	..	..	..	..	27,000 and 21,600
5	Deputy Commissioners, 1st grade	..	..	..	..	..	..	27,000
6	" " 2nd "	..	..	..	..	..	..	21,600
6	" " 3rd "	..	..	..	..	..	..	18,000
4	Assistant " 1st "	..	..	..	..	..	..	10,800
3	" " 2nd "	..	..	..	..	..	..	8,400
3	" " 3rd "	..	..	..	..	..	..	4,800 — 6,000
2	Under Secretaries to Chief Commissioner	..	..	..	..	..	..	12,000
1	District and Sessions Judge	..	..	..	..	..	..	24,000
1	Inspector-General of Police	..	..	..	..	..	..	27,000
1	Director of Public Instruction	..	..	..	..	..	..	15,000 to 18,000
<b>United Provinces of Agra and Oudh.</b>								
1	Lieutenant Governor	..	..	..	..	..	..	1,00,000
1	Chief Secretary to Government	..	..	..	..	..	..	36,000
2	Members of the Board of Revenue	..	..	..	..	..	..	42,000
2	Secretaries to Government	..	..	..	..	..	..	20,000 and 22,000
1	Secretary to Board of Revenue	..	..	..	..	..	..	20,000
3	Under Secretaries to Government	..	..	..	..	..	..	12,000
9	Commissioners of Divisions	..	..	..	..	..	..	35,000
1	Commissioner for Kumaon	..	..	..	..	..	..	30,000
1	Opium Agent	..	..	..	..	..	..	30,000 to 36,000
19	Magistrates and Collectors, 1st grade	..	..	..	..	..	..	27,000
17	" " 2nd "	..	..	..	..	..	..	22,000
4	Deputy Commissioners, 1st grade	..	..	..	..	..	..	22,000
10	" " 2nd "	..	..	..	..	..	..	20,000
14	Joint Magistrates, 1st grade	..	..	..	..	..	..	12,000
6	Assistant Commissioners, 1st grade	..	..	..	..	..	..	9,600
20	Joint Magistrates and Assistant Commissioners, 2nd grade	..	..	..	..	..	..	8,400
3	Assistant " " " " " "	..	..	..	..	..	..	4,800 to 6,000
3	Deputy Commissioners for Kumaon	..	..	..	..	..	..	12,000, 12,000 and 18,000
1	City Magistrate, Lucknow	..	..	..	..	..	..	12,000
1	Superintendent, Dehra Dun	..	..	..	..	..	..	18,000
1	Judicial Commissioner	..	..	..	..	..	..	48,000
2	Additional Judicial Commissioners	..	..	..	..	..	..	34,000 and 40,000
2	District and Sessions Judges, 1st grade	..	..	..	..	..	..	36,000
7	" " 2nd "	..	..	..	..	..	..	30,000
6	" " 3rd "	..	..	..	..	..	..	27,000
4	" " 4th "	..	..	..	..	..	..	22,000
3	" " 5th "	..	..	..	..	..	..	20,000
1	Registrar, High Court	..	..	..	..	..	..	19,200
1	Inspector-General of Police	..	..	..	..	..	..	30,000 to 36,000
1	Director of Public Instruction	..	..	..	..	..	..	24,000
<b>Punjab.</b>								
1	Lieutenant Governor	..	..	..	..	..	..	1,00,000
1	Chief Secretary to Government	..	..	..	..	..	..	36,000
2	Secretaries to Government	..	..	..	..	..	..	18,000

# Salaries of Chief Officers.

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Punjab— <i>ctd.</i>		Pay per Annum. Rs.
2	Under Secretaries to Government	12,000
1	Under Secretary, Police Department, and Inspector-General of Police	30,000 to 36,000
1	Under Secretary, Educational Department	22,800
2	Financial Commissioners	42,000
2	Secretaries to Financial Commissioner	10,800 and 18,000
5	Commissioners	33,000
10	Deputy Commissioners, 1st grade	27,000
11	" " 2nd "	21,600
13	" " 3rd "	18,000
14	Assistant Commissioners, 1st grade	10,800
15	" " 2nd "	8,400
"	" " 3rd "	4,800 to 6,000
2	Divisional Judges, 1st grade	33,000
3	" " 2nd "	30,000
5	" " 3rd "	27,000
6	" " 4th "	21,600
8	District Judges	18,000
1	Registrar of the Chief Court	15,000
1	Legal Remembrancer	24,000
1	Inspector-General of Police	30,000 to 36,000
1	Director of Public Instruction	18,000 to 24,000
Burma.		
1	Lieutenant Governor	1,00,000
1	Chief Secretary to Government	36,000
2	Secretaries	21,600
2	Under Secretaries	14,400
1	Assistant Secretary	14,000
1	Financial Commissioner	42,000
1	Settlement Commissioner and Director of Land Records	33,000
1	Secretary to Financial Commissioner	14,800
1	Director of Agriculture	18,000
8	Commissioners of Divisions	33,000
12	Deputy Commissioners, 1st grade	27,000
13	" " 2nd "	21,600
14	" " 3rd "	18,000
11	Assistant " 1st "	12,000
13	" " 2nd "	8,400
10	" " 3rd "	7,200
52	" " 4th "	5,400 to 6,000
1	Judicial Commissioner	42,000
2	Divisional Judges, 1st grade	33,000
2	" " 2nd "	27,000
2	" " 3rd "	21,600
8	District	18,000
1	Registrar, Chief Court, Lower Burma	14,400
1	Government Advocate	18,000 to 21,000
Central Provinces.		
1	Chief Commissioner	62,000
1	Financial Commissioner	42,000
4	Commissioners of Divisions	2 at 30,000 and 2 at 33,000
4	Deputy Commissioners, 1st class	27,000
10	" " 2nd "	21,600
12	" " 3rd "	18,000
4	Assistant " 1st "	10,800
10	" " 2nd "	8,400
"	" " 3rd "	4,800 to 6,000
1	Judicial Commissioner	42,000
2	Additional Judicial Commissioners	36,000 and 33,000
1	Inspector-General of Police	21,600
1	Director of Public Instruction	18,000 to 24,000
Berar.		
1	Commissioner	33,000
2	District and Sessions Judges	22,000 and 20,000
3	Deputy Commissioners, 1st class	22,000
2	" " 2nd "	20,000
2	" " 3rd "	18,000
2	Assistant " 1st "	10,800
3	" " 2nd "	8,400

### Salaries of Chief Officers.

Madras.										Pay per Annum Rs.
3	Members of Council	..	..	..	..	..	..	..	..	64,000
1	First Member, Board of Revenue	..	..	..	..	..	..	..	..	45,000
1	Second Member	..	..	..	..	..	..	..	..	42,000
1	Third Member	..	..	..	..	..	..	..	..	36,000
1	Fourth Member	..	..	..	..	..	..	..	..	36,000
1	Chief Secretary to Government	..	..	..	..	..	..	..	..	45,000
1	Revenue Secretary to Government	..	..	..	..	..	..	..	..	37,500
1	Secretary to Government	..	..	..	..	..	..	..	..	30,000
1	Private Secretary to Governor	..	..	..	..	..	..	..	..	18,000
2	Under Secretaries to Government	..	..	..	..	..	..	..	..	12,000
1	Secretary to Commissioners of Land Revenues	..	..	..	..	..	..	..	18,000 to	21,600
1	Secretary to the Commissioners of Salt, &c.	..	..	..	..	..	..	..	18,000 to	21,600
22	District and Sessions Judges	..	..	..	..	..	..	..	21,000 to	36,000
1	Registrar, High Court	..	..	..	..	..	..	..	18,000 to	21,600
1	Advocate General	..	..	..	..	..	..	..	..	21,600
1	Government Solicitor	..	..	..	..	..	..	..	..	13,200
1	Chief Judge, Small Cause Court	..	..	..	..	..	..	..	..	21,000
1	Resident in Travancore and Cochin	..	..	..	..	..	..	..	..	33,600
1	Inspector-General of Police	..	..	..	..	..	..	..	30,000 to	36,000
7	Collectors, 1st grade	..	..	..	..	..	..	..	..	80,000
14	"    2nd	..	..	..	..	..	..	..	..	27,000
1	Commissioner of Coorg	..	..	..	..	..	..	..	21,600 to	24,000
1	President, Corporation of Madras	..	..	..	..	..	..	..	..	21,000
6	Collectors, 3rd grade	..	..	..	..	..	..	..	..	21,600
18	Sub-Collectors and Joint Magistrates, 1st grade	..	..	..	..	..	..	..	..	14,400
16	"    "    "    2nd	..	..	..	..	..	..	..	..	10,800
10	"    "    "    3rd	..	..	..	..	..	..	..	..	8,400
-	Assistant Collectors and Magistrates	..	..	..	..	..	..	..	4,800 to	6,000
1	Director of Public Instruction	..	..	..	..	..	..	..	24,000 to	30,000

**Bombay.**

	9	Members of Council .. .. .	64,000
1		Chief Secretary to Government .. .. .	45,000
1		Secretary to Government .. .. .	37,500
1		" " " "	30,000
1		Private Secretary to Governor .. .. .	18,000
2		Under Secretaries to Government .. .. .	15,000
1		Inspector-General of Prisons .. .. .	21,600 to 24,000
1		Inspector-General of Police .. .. .	30,000 to 36,000
4		Commissioners of Divisions .. .. .	36,000 and 42,000
1		Commissioner in Sind .. .. .	45,000
1		Municipal Commissioner, Bombay .. .. .	30,000
13		Senior Collectors .. .. .	27,900
15		Junior " " " "	21,600
5		Assistant Collectors, 1st grade .. .. .	14,400
10		" " " 2nd " " " "	10,800
19		" " " 3rd " " " "	8,400
-		" " " 4th " " " "	4,800 to 6,000
1		Collector in Sind .. .. .	21,600
2		Deputy Commissioners in Sind .. .. .	18,000
1		Assistant Commissioner in Sind .. .. .	18,200
1		Judicial Commissioner in Sind .. .. .	36,000
1		Additional Judicial Commissioner in Sind .. .. .	33,000
2		District and Sessions Judges—1st grade .. .. .	30,000
6		" " " 2nd " " " "	27,900
0		" " " 3rd " " " "	21,600
1		Prothonotary and Registrar, High Court .. .. .	20,400 to 24,000
1		Administrator General and Official Trustee .. .. .	24,000 to 30,000
1		Registrar, High Court .. .. .	20,400
1		Chief Judge, Small Cause Court .. .. .	24,000
1		Remembrancer of Legal Affairs .. .. .	30,000
1		Government Solicitor .. .. .	30,000
1		Advocate General .. .. .	24,000
1		Agent to the Governor in Kathlawar .. .. .	36,000
1		Resident and Senior Political Agent .. .. .	27,000
2		Political Agents, 1st grade .. .. .	21,600
3		" " " 2nd " " " "	18,000
7		" " " 3rd " " " "	14,400
17		Assistant Political Agents on time scale of pay .. .. .	6,000 to 14,400
1		Director of Public Instruction .. .. .	24,000 to 30,000

## The Church in India.

In the ordinary acceptance of the term, there is no established Church in India. An Ecclesiastical Establishment is maintained for providing religious ministrations, primarily, to British troops, secondarily to the European civil officials by Government and their families. Seven out of the eleven Anglican Bishops in India are officers of the Establishment, though their episcopal jurisdiction transcends the limits of the Ecclesiastical Establishment. The stipends of the three Presidency Bishops are paid entirely by Government, and they hold an official status which is clearly defined. The Bishops of Lahore, Lucknow, Nagpur and Rangoon draw from Government the stipends of Senior Chaplains only but their episcopal rank and territorial titles are officially recognised. The Bishops of Chota Nagpur, Tinnevely, Madras, Travancore, Cochin and Dornakal are not on the establishment.

The ecclesiastical establishment includes four denominations—Anglican, Presbyterian, Roman and Wesleyan. Of these, the first two enjoy a distinctive position, in that the Chaplains of those denominations (and in the case of the first-named the Bishops) are individually appointed by the Secretary of State and rank as gazetted officers of Government. Throughout the Indian Empire there are 134 Anglican and 11 Presbyterian chaplains whose appointments have been confirmed. The authorities in India of the Roman Catholic and Wesleyan Churches receive block-grants from Government for the provision of clergy to minister to troops and others belonging to their respective denominations. Churches of all four denominations may be built, furnished and repaired, wholly or partly at Government expense.

In the Anglican communion the Government has been hitherto of the nature of an episcopal autocracy, tempered by a large deference to the wishes of Government in one direction and the counsels of missionary societies in another. A movement towards Synodical Government on an elective basis is now well advanced. It is felt that the interests of the large and growing body of native converts demand a substantial measure of autonomy. The possibility of an early modification of the ecclesiastical establishment also operates as a motive towards a Synodical system. At present the Anglican communion, in seven of its Indian dioceses, is relieved of the financial burden of maintaining its own bishops. That state of things may not continue indefinitely, and prudence seems to suggest that the Church should learn to manage its own affairs while the advantage of a State-supported episcopacy still exists.

So far as the European and Anglo-Indian communities are concerned the activities of the Church are not confined to public worship and pastoral functions. The education of the children of those communities is very largely in the hands of the Christian denominations. There are a few institutions such as the La Martinière Schools, on a non-denominational basis; but they are exceptional. In all the large centres there exist schools of various grades as well as orphanages, for the education

of Europeans and Anglo-Indians under the control of various Christian bodies. The Roman Catholic Church is honourably distinguished by much activity and financial generosity in this respect. Her schools are to be found throughout the length and breadth of the Indian Empire; and they maintain a high standard of efficiency. The Anglican Church comes next, and the American Methodists have established some excellent schools in the larger hill-stations. The Presbyterians are also well-represented in this field. Schools of all denominations receive liberal grants-in-aid from Government, and are regularly inspected by the Education Departments of the various provinces. Thanks to the free operation of the denominational principle and its frank recognition by Government, there is no "religious difficulty" in the schools of the European and Anglo-Indian communities.

### Christian Missions.

The tradition that St. Thomas, the Apostle, was the first Christian missionary in India is by no means improbable. History, however, carries us no further back than the sixth century, when a community of Christians is known to have existed in Malabar. Since then the so-called Syrian Church in south-west India has had a continuous life. Except in its infancy this Church (or rather these Churches, for the Syrian Christians are now divided into four communions) has displayed little of the missionary spirit until quite recent times. Western Christianity was first introduced into India by the Portuguese, who established their hierarchy throughout their sphere of influence, Goa being the metropolitan see of the Indies. St. Francis Xavier, a Spaniard by race, took full advantage of the Portuguese power in Western India to carry on his Christian propaganda. His almost super-human zeal was rewarded with much success, but many of the fruits of his labour were lost with the shrinkage of the Portuguese Empire. It is really to the work of the missionaries of the Propaganda in the 17th century that the Papacy owes its large and powerful following in India to-day. The Roman Catholics in India number 1,901,006, of whom 370,251 were added during the decade 1901-1911. The total of "Syrian" Christians (exclusive of those who while using the Syrian liturgy, are of the Roman obedience) is 315,612, as against 248,741 in 1901. Protestant Christians (the term throughout this article includes Anglicans) number 1,636,731, an increase of 86,080 since 1901. Thus, the total number of Christians of all denominations in India is now close on four millions. In fact it probably exceeds that figure at the present moment, as these statistics are taken from the Census Report of 1911, and the rate of increase during the previous decade was nearly 100,000 per annum.

The Protestant Churches made no serious attempt to evangelise India till the beginning of the nineteenth century. They have thus been at work in the Indian mission field for something over 100 years, and the statistical results of their efforts are given above. It is



now, however, generally recognised that Christian missions are producing indirect effects in India which lend themselves only incompletely to any sort of tabulation. The main agency of this more diffusive influence of Christianity is the missionary school and college. The Protestant missions fill a considerable part in the elementary education of the country. According to the *Year Book of Missions in India*, 1912, they are teaching 446,000 children in 13,204 elementary schools, mostly situated in villages. This represents one-ninth of the total of elementary schools and scholars throughout the Empire. The majority of children in these schools are non-Christians. The same is true also of the high schools and in a still greater degree of the colleges. The former number 283 with 62,600 male and 8,400 female pupils. There are 38 colleges affiliated to Universities, containing 5,488 male and 61 female students. Of these as many as 5,241 are non-Christians. From the stand point of missionary policy much importance is attached to these agencies for the indirect propagation of the Christian faith. The statesman and the publicist are chiefly interested in the excellent moral effect produced by these institutions amongst the educated classes, and the higher educational ideals maintained by their staffs. The principle University colleges under Protestant auspices are the Madras Christian College; the Duff College, Calcutta; the Wilson College, Bombay; and the Foreman College, Lahore. All these are maintained by Presbyterian societies, either British or American. The Roman Catholics have a large number of educational institutions, ranging from small village schools to great colleges preparing students for University degrees. But the proportion of Christian students in their institutions is very much larger than in those of the Protestant bodies. The proportion of literates amongst native Roman Catholics is probably lower than amongst the Protestant converts; but compared with Hindus and Mahomedans it is conspicuously higher. The Roman Catholics have some 3,000 elementary schools in which 98,000 boys and 41,000 girls are receiving instruction. In middle and high schools they have 143,000 boys and 73,000 girls and in University colleges about 5,000 students of both sexes. These figures, however, include a large proportion of Europeans and Eurasians, who are an almost negligible quantity in Protestant mission schools and colleges.

More recent, but producing even more widespread results, is the philanthropic work of Christian missions. Before the great famine of 1878, missionaries confined themselves almost exclusively to evangelistic and educational activity. The famine threw crowds of destitute people and orphan children upon their hands. Orphanages and industrial schools became an urgent necessity. But the philanthropic spirit is never satisfied with one kind of organisation or method. A great stimulus was also given to medical missions. Hospitals and dispensaries have sprung up in all parts of the mission field; and leper asylums are almost a monopoly of Christian missionary effort. In 1911 the total number of medical missionaries working under Protestant socie-

ties in India was 118 men and 217 women, the majority of the former being also ordained ministers of religion. There are 184 industrial institutions in which 59 different arts and crafts are taught, ranging from agriculture to type-writing. In this department the Salvation Army hold a prominent place; and the confidence of Government in their methods has been shown by their being officially entrusted with the difficult work of winning over certain criminal tribes to a life of industry. The indirect effect of all this philanthropic activity under missionary auspices has been most marked. It has awakened the social conscience of the non-Christian public, and such movements as "The Servants of India" and the mission to the Depressed Classes are merely the outward and visible sign of a great stirring of the philanthropy spirit far beyond the sphere of Christian missionary operations.

**Anglican Missionary Societies.**—The Church Missionary Society carries on work in India in seven different missions—the United Provinces, South India, Travancore and Cochin, Bengal, Western India, Punjab and Sind and the Central Provinces and Rajputana. The names are in order of seniority. Work was begun in what are now called the United Provinces in 1813, in the Punjab in 1851, and in the Central Provinces in 1854. The Society has always kept Evangelistic work well to the fore; but it also has important medical missions, especially on the N.-W. Frontier, and many schools of the Primary, Middle and High standards. The Church of England and Zenana Missionary Society is an offshoot of the C. M. S. controlling the work of 162 missionary ladies. The number of ordained European missionaries of the C. M. S. in India is 166, European laymen 64 and European lay-women 271. The Society claims a Christian community of 1,85,000 of whom 52,000 are adult communicants.

**Society for the propagation of the Gospel.** Statistics of the work of this Society are not easily ascertained, as much of it is done through Diocesan institutions, which, while financed and in many cases manned by the S. P. G., are entirely controlled by the Diocesan authorities. The best known of the S. P. G. missions is that at Delhi, commonly called the Cambridge Mission to Delhi, carrying on educational work at St. Stephen's College and School. Missions to the depressed classes exist in Burma, in the Ahmednagar District and in several parts of South India, especially in the Diocese of Tinnevely-Madura. There are 12,6,000 Indian Christians under the aegis of the S. P. G.; 90 ordained European missionaries and 98 European lady workers.

**Other Anglican Societies.**—The Oxford Mission to Calcutta was started in 1880. It works in the poorest parts of Calcutta and also at Barisal. There are 10 mission-priests of this Society, 4 laymen, and 11 laywomen. In addition to its work amongst the poor, the Oxford Mission addresses itself to the educated classes in Bengal and issues a periodical called *Epiphany*, which is known all over India.

The Society of St. John the Evangelist (commonly known as the Cowley Fathers) has houses at Bombay and Poona, and small stations in the

Bombay Konkan. In Bombay its missionary work centres round the Church of Holy Cross, Umarnadi, where there is a school and a dispensary. The Christians are chiefly drawn from the very poorest classes of the Bombay population. At Poona the Society co-operates with the Wantage Sisters and in Bombay with

the All-Saints Sisters. Other Anglican sisterhoods represented in India are the Clerew Sisters at Calcutta and the Sisters of the Church (Kilburn) at Bangalore. The St. Hilda's Deaconesses' Association of Lahore carries on important educational work (chiefly amongst the domiciled community) in the Punjab.

### Bengal Ecclesiastical Department.

Lefroy, Most Reverend George Alfred, D.D. .. Lord Bishop of Calcutta and Metropolitan of India.

#### SENIOR CHAPLAINS.

Macdonald, Rev. James Middleton, M.A. .. Services transferred to Punjab.  
Wickins, Ven'ble Canon William John, M.A. .. Archdeacon of Calcutta.  
Scott, Rev. Sydney, S., M.A. .. Services transferred to Punjab.  
Cogan, Canon Horace Barbut, M.A., D.D. .. Fort William and Military Hospital, Calcutta.  
Stuart, Rev. Robert William Hall, B.A. .. St. Paul's Cathedral, Calcutta.  
Smith, Rev. Joseph Frank, B.A., A.K.C. .. St. James', Calcutta.  
Finninger, Rev. Walter Kelly, M.A. D.D. .. Officiating Archdeacon and Chaplain, St. John's Church, Calcutta.  
Stokoe, Rev. Cecil George, M.A. .. St. Thomas', Calcutta.

And 13 Junior Chaplains.

#### CHAPLAINS OF THE CHURCH OF SCOTLAND.

Chree, Rev. George Johnstone, B.D. .. Presidency Senior Chaplain, St. Andrew's, Calcutta. On combined leave.  
Gillan, Rev. D. H. .. Officiating.  
Dodd, Rev. G. E. .. Officiating Second Chaplain, St. Andrew's, Calcutta.

#### CHAPLAINS OF THE CHURCH OF ROME.

Meulman, The Most Reverend Dr. Brice, S.J. .. Archbishop.  
Marchal, Rev. Fr. V., S.J. .. Officiating Administrator of the Archdiocese.  
Carbery, Rev. Fr. Stanislaus, S.J. .. Chaplain, Presidency Jail.

### Bombay Ecclesiastical Department.

Palmer, Right Reverend Edwin James, M.A. .. Lord Bishop of Bombay.  
Barham, Rev. C. M., M.A. .. Archdeacon of Bombay and Bishop's Commissary.  
Bowen, John Cuthbert Grenside .. Registrar of the Diocese.  
Coles, Rev. A. H. ..  
Heywood, Rev. R. S. ..  
Joshi, Rev. D. L. ..  
King, Rev. C. ..  
Rivington, Rev. C. S. .. } Honorary Canons of Bombay Cathedral.

#### SENIOR CHAPLAINS.

Courtice, Rev. George Robert Aulton, M.A., B.Sc. .. On furlough.  
Foote, Rev. Harold. .. Camp, Aden.  
Nelson, Rev. Horatio William, M.A. .. Ahmedabad.  
deCoetlogon, Rev. Charles Evelyn Cambridge, M.A. .. Colaba.  
Kennelly, Ven'ble W. J. M., B.A. .. Byulla.  
Mould, Rev. Horace .. Mount Abu.

And 17 Junior Chaplains.

#### CHAPLAINS OF THE CHURCH OF SCOTLAND.

Matthew, Rev. John Crombie, M.A., B.D. .. Acting Senior Presidency Chaplain.  
And 3 Junior Chaplains.

#### CHAPLAINS OF THE CHURCH OF ROME.

Jurgens, The Very Rev. M. .. Presidency.

### Madras Ecclesiastical Department.

Whitehead, Right Reverend Henry, D.D. .. Lord Bishop of Madras.  
Cox, Ven'ble Lionel Edgar, M.A. .. Archdeacon and Commissary and Domestic Chaplain to the Lord Bishop.  
Rowlandson, Frederic, B.A., LL.B. .. Registrar of the Diocese and Secretary to the Lord Bishop.

**SENIOR CHAPLAINS.**

Breay, Rev. Christopher Francis, M.A.	..	..	Vellore.
Bull, Rev. Edmund	..	..	St. Thomas' Mount.
Giles, Rev. Clement Douglas, M.A.	..	..	On combined leave.
Welchman, Rev. Richard Herbert, M.A.	..	..	Wellington.
Lys, Rev. Alayne FitzHerbert	..	..	Cocopada.
Hatchell, Rev. Christopher Frederic Wellesley, M.A.	..	..	On combined leave.
Heycock, Rev. Francis Wheaton, M.A.	..	..	Secunderabad.

And 24 Junior Chaplains.

**CHURCH OF SCOTLAND.**

Heron, Rev. John, M.A., B.D.	..	..	Presidency Senior Chaplain, St. Andrew's Church, Madras. On combined leave.
Meldrum, Rev. Neil, M. A., B. D.	..	..	St. Andrew's Church, Madras.
Phillip, Rev. James Gibson	..	..	St. Andrew's Church, Bangalore.
Mitchell, Rev. James Donald, M.A., B.D.	..	..	St. Andrew's Church, Secunderabad.

**Assam Ecclesiastical Department.**

Dyer, Rev. Basil Saunders, B.A.	..	..	Shillong.
Orpwood, Rev. H., M.A.	..	..	Sibsagar.
Jourdain, Rev. R. T., M.A.	..	..	Silchar.

**Bihar and Orissa Ecclesiastical Department.****JUNIOR CHAPLAINS.**

Birch, Rev. Ormonde Winstanley	..	..	Dinapore.
Taylor, Rev. John Frederic Oddin, B.A.	..	..	Cuttack.
Cullen, Rev. John Armstrong	..	..	Blagalpur.
Green, Canon Arthur Daniel	..	..	Monghyr and Jamalpur.
Payne, Rev. Russell, M.A.	..	..	Muzaffarpur.
Cosgrave, Canon W. F.	..	..	Ranchi.
Moore, Rev. H. M.	..	..	Bankipore.

**Burma Ecclesiastical Department.**

Fyffe, The Right Reverend Rolleston Sterritt, M.A.	..	..	Lord Bishop of Rangoon.
Cory, Ven'ble Charles Page, M.A.	..	..	Archdeacon and Bishop's Commissary.

**SENIOR CHAPLAINS.**

Mandford, Rev. Henry Weare, B.A.	..	..	Shwabo.
Collins, Rev. James Henry	..	..	Dagshai.
Seeley, Rev. George Henry	..	..	Mantafay.

And 7 Junior Chaplains.

**Central Provinces Ecclesiastical Department.**

Chatterton, Right Reverend E., D.D.	..	..	Lord Bishop of Nagpur.
Price, Ven'ble C., M.A.	..	..	Archdeacon, Nagpur.

**SENIOR CHAPLAINS.**

Darling, Rev. C. W., M.A.	..	..	Jubbulpore.
Anstey, Rev. H. C. S., M.A.	..	..	Neemuch.

And 14 Junior Chaplains.

**North-West Frontier Ecclesiastical Department.****SENIOR CHAPLAIN.**

Stewart, Rev. C., B. A.	..	..	Nowshera.
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And 4 Junior Chaplains.

**Punjab Ecclesiastical Department.**

Durrant, Right Reverend H. B., M.A., F.D.	..	..	Lord Bishop of Punjab, Lahore.
Warlow, The Ven'ble Edmund John, M.A.	..	..	Archdeacon.

**SENIOR CHAPLAINS.**

Mac Donald, Rev. J. M., M.A.	..	..	Subathu.
Parry, Rev. John Horndon, M.A.	..	..	West Ridge, Rawalpindi.
Naish, Rev. Henry	..	..	On combined leave.
Becker, Rev. Charles Maxwell, M.A.	..	..	Ambulla.
Syme, Rev. James Greensill Skottowe, M.A.	..	..	Simla.
Brookes, Rev. Joshua Alfred Rowland, M.A.	..	..	Kashmir.
Stanley, Rev. Albert Edward, M.A.	..	..	Jullunder.
Musprott, Rev. Walter, M.A.	..	..	Murree Galls.
Stewart, Rev. Charles, B.A.	..	..	Nowshera.

And 19 Junior Chaplains.

### United Provinces Ecclesiastical Department.

Wescott, The Right Reverend George Herbert	..	Lord Bishop of Lucknow.
Chapman, The Ven'ble Percy Hugh, M.A., LL.D.	..	Archdeacon of Lucknow.
Pearson, H. G., Bar-at-Law	..	Registrar of the Diocese of Lucknow.
SENIOR CHAPLAINS.		
Klugh, Rev. Leonard	..	On combined leave.
Kirwan, Rev. Robert Mansel, M.A.	..	Barilly.
Shaw, Rev. Walter Lilley Pritchett, M.A.	..	Landour.
Johnson, Rev. Percy James Debenham, B.A.	..	Fyzabad.
Oldham, Rev. George Ernest, M.A.	..	Lucknow (Civil).
Canney, Rev. Duncan Arnold	..	Chan Caffia.
Menzies, Rev. Henry, M.A.	..	Mussoorie.

And 16 Junior Chaplains, with 7 Additional Clergy.

### CHURCH OF SCOTLAND.

Two Junior Chaplains.

### THE ROMAN CATHOLIC CHURCHES.

With regard to numbers, the *Catholic Directory of India*, 1913, gives the following discrepancies:—

		Civil Census 1911.	Ecclesiastical Estimate.
British India	Latin rite	1,430,582	1,535,820
	Syriac rite	413,142	364,660
Total, British India and Prot. States		1,843,724	1,900,480
Burma	..	60,282	88,447
Ceylon	..	339,300	322,163
Total, India, Burma, and Ceylon		2,243,306	2,311,090
French India	..	....	25,918
Portuguese India	..	....	296,148
Ecclesiastical Grand Total		....	2,633,156*

\* After trying to rectify discrepancies the *Directory* fixes as probable the following numbers:—

European and Eurasian Catholics	..	114,512
Baptised Native Catholics	..	2,423,286

Total .. 2,537,798

The Catholic community as thus existing is composed of the following elements:—

- (1) The "Syrian" Christians of the Malabar Coast, traditionally said to have been converted by the Apostle St. Thomas. They were brought under allegiance to the Pope by the Portuguese in 1599, and placed first under Jesuit bishops and then under Carmelite Vicars Apostolic. They are at present ruled by four Vicars Apostolic of their own Syriac rite.
- (2) Converts of the Portuguese missionaries from 1500 and onwards, starting from Goa and working in the south of the peninsula and up the west coast and in Ceylon.
- (3) European immigrants at all times, including British troops.
- (4) Modern converts from Hinduism and Animism in recent mission centres.

The Portuguese mission enterprise starting after 1500, continued for about 200 years, after which it began to decline. To meet this decline fresh missionaries were sent out by the Congregation de *propaganda fide*, till by the middle of the 19th century the whole country was divided out among them except such portions as were occupied by the Goa clergy. Hence arose a conflict of jurisdiction in many parts between the Portuguese clergy of the "padroado" or royal patronage, and the *propaganda* clergy. This conflict was set at rest by the Concordat of 1886. At the same time the whole country was placed under a regular hierarchy, which after subsequent adjustments stood as follows:—

Of the Portuguese Jurisdiction:—

The archbishopric of Goa (having some extension into British territory) with suffra-

*Note.*—Recent changes modifying the above system are (1) The creation of a new archbishopric at Simla in 1910 to which Lahore and Kashmir are now attached as suffragan, (2) The addition of a fourth Vicariate Apostolic of the Syriac rite, (3) The elevation of Rajputana to a bishopric (of Ajmer), suffragan to Agra.

gan bishoprics at Cochin, Mylapore and Damaun (all three in British territory).  
 Of the Propaganda Jurisdiction :—  
 The archbishopric of Agra with suffragan bishoprics of Allahabad and Lahore, and Prefectures Apostolic of Kashmir, Bettiah and Jaipurana.  
 The archbishopric of Bombay, with suffragan bishoprics of Poona, Mangalore and Trichinopoly.  
 The archbishopric of Calcutta, with suffragan bishoprics of Dacca and Krishnagar, and the Prefecture Apostolic of Assam.  
 The archbishopric of Madras, with suffragan bishoprics of Hyderabad, Vizagapatnam and Nagpur.  
 The archbishopric of Pondicherry (French) with suffragan bishoprics of Mysore, Coimbatore and Kumbakonam.  
 The archbishopric of Colombo (Ceylon) with suffragan bishoprics at Kandy, Galle, Jaffna and Trincomalee.  
 The archbishopric of Verapoly, with suffragan bishopric of Quilon.  
 Three Vicariates Apostolic of the Syrian rite, for the Thomas Christians of Malabar.  
 Three Vicariates Apostolic of Burma.

The European clergy engaged in India almost all belong to religious orders, congregations or mission seminaries, and with a few exceptions are either French, Belgian, Dutch, German, Spanish or Italian by nationality. They number about 1,000 besides which there is a body of secular clergy mostly native to the country, numbering about 2,000 and probably about 2,000 nuns. The first work of the clergy is parochial ministrations to existing Christians, including railway people and British troops. Second comes education, which is not confined to their own people; their

schools being frequented by large numbers of Hindus, Mahomedans, Parsis, etc. Among the most important institutions are St. Xavier's College, Calcutta, St. Peter's College, Agra, St. Xavier's College, Bombay, St. Joseph's College, Trichinopoly, St. Aloysius College, Mangalore, teaching university courses; besides a large number of high schools and elementary schools. The education of girls is supplied for by numerous convent schools worked by religious congregations of nuns to say nothing of orphanages and other charitable institutions. The total number under education amounted in 1904 to 143,051 boys and 73,164 girls, later figures being unavailable.

As to missionary work proper, the country is covered with numerous mission centres, among which those in Chota Nagpur, Gujarat, Orissa, the Nizam's Dominions, the Ahmednagar district and the Telugu coasts may be mentioned. (Full particulars on all points will be found in the Catholic Directory already quoted.) The mission work is limited solely by shortage of men and money, which if forthcoming would give the means to an indefinite extension. The resources of the clergy after the ordinary church collections and pay of a few military and railway chaplains are derived mainly from Europe, that is, from the collections of the *Society for the Propagation of the Faith* and of the *Holy Childhood*, helped out by private or other donations secured from home by the different local missionaries. In mission work the fathers count as enrolled only those who are baptised and persevering as Christians, and no baptism, except for infants or at point of death, is administered except after careful instruction and probation. This, while keeping down the record, has the advantage of guaranteeing solid results.

## THE SCOTTISH CHURCHES.

THE ESTABLISHED CHURCH OF SCOTLAND.—The Chaplaincy work of the Church of Scotland dates from 1814, when the Rev. Dr. Bryce landed in Calcutta, and organised a congregation of his Scottish fellow countrymen. Since 1903 there have been eighteen chaplains on the staff, of whom nine belong to the Bengal Presidency, five to Bombay, and four to Madras. These minister both to the Scottish troops and to the civil population of the towns where they are stationed, but when there is a Scottish regiment the chaplain is attached to the regiment, instead of being posted to the station where the regiment happens to be placed. There are churches in the chief towns of the Presidencies, and Churches have also been built, or are being built, in all considerable military stations, e.g., Chakrata, Lucknow, Peshawar, Ranikhet, Rawalpindi, Sialkot and Umballa. In addition to the regular establishment there are a number of acting Chaplains sent out by the Colonial Committee of the Church of Scotland; and these are serving in such stations as Rawalpindi, Cawnpore, Meerut, Mhow, and Quetta. In other places such as Sialkot, Murree, Dalhousie, Darjeeling and Lahore regular services are provided by Scottish Missionaries. Simla has a minister of its own sent out from Scotland.

The Mission work of the Church of Scotland

dates from 1829, when Alexander Duff, one of the greatest of modern missionaries, was sent to Calcutta. He was the first to open schools where English was made the medium for instruction, and where religious teaching was given daily. Similar educational missions were soon afterwards started in Bombay and Madras. Educational work is still an important branch of the mission work of the Church, but the Bombay College was closed in 1891, and in 1907 the College in Calcutta was united with the College of the United Free Church of Scotland, to form the "Calcutta Christian College." In the Punjab Evangelistic work is being carried on from eight centres under seventeen missionaries. The baptised Christian community now numbers over 8,000. Work commenced in Darjeeling in 1870 is now carried on throughout the whole Eastern Himalayan district, and there is a Christian community there of between five and six thousand. In connection with these missions the Women's Association of Foreign Missions does invaluable service in school, medical and zenana work, having in India 47 European missionaries, 143 teachers, over 50 schools, three hospitals and six dispensaries.

The Established Church of Scotland has also done much to provide education for European children in India. Together with the United

**Free Church St. Andrew's Church** provides the governing body of the Bombay Scottish High Schools, which have always held a high place among such institutions, and exercises pastoral supervision over the Bombay Scottish Orphanage. In Bangalore there is the St. Andrew's High School, and both in Bangalore and in Madras the local congregation supports a school for poor children. The now well-known St. Andrew's Colonial Homes at Kalimpong, Bengal, though not directly part of the work of the Church of Scotland, were initiated by and are being locally managed by Missionaries of that Church. The homes exist for the benefit of the domiciled European Community, and are doing magnificent work. There are now fifteen cottages, and 437 children in residence.

**THE UNITED FREE CHURCH OF SCOTLAND.**—This branch of the Scottish Church has only two purely European congregations in India, one in Calcutta, Wellesley Square, and one in Bombay, Waudby Road. As noted above, members of these congregations co-operate with the Established Church of Scotland in providing education for European children. In Calcutta a second congregation is maintained at Howrah in the district of the mills, and every effort is made to minister to the Scottish engineers and other workers in the mills.

The Mission work of the Church is extended and varied. It is carried on in six centres—in Bengal; in Santalia, with five stations; in Western India, including Bombay, Bombay

district, Poona, and Jalna and Bethel in the Nizam's Dominions; in Madras, with four stations; in the Central Provinces, including Nagpur, Nagpur District, Bhandara, Wardha and Amraoti; and in Rajputana where since 1860 missions have been established in eleven districts.

There are at work in these centres 194 Scotch missionaries, together with a native staff of 310. Of organised Indian congregations there are 38, comprising 4,463 communicant members, and representing a Christian community of 12,022. Of schools there are 285 with 700 teachers. A large part of this work is organised and supported by the women of the Church who have sent out as many as 76 of these missionaries. In connection with the medical work of the mission there are 10 hospitals where in the year 148,931 out-patients and 4,540 in-patients are treated, all of whom are brought under Christian instruction. There are four great missionary Colleges. There is the Madras Christian College, with 800 students, which reached its great success under the wise leadership of the Rev. Dr. William Miller, and which is now contributed to by five other Missionary Societies as well as that of the United Free Church. Representatives of these Missions, which include the C. M. S. and the Wesleyan Missionary Society, sit upon the College Board. There is the Scottish Christian College in Calcutta, with over 900 students, the Hishop College at Nagpur with 240 students, and the Wilson College in Bombay with nearly 700 students.

## BAPTIST SOCIETIES.

**THE ENGLISH BAPTIST MISSIONARY SOCIETY**—formed in 1793—largely through the efforts of Dr. Wm. Carey, operates mainly in Bengal, Bihar, the United Provinces and the Punjab, with a staff of 79 missionaries and about 800 Indian workers. Connected with the Society are 167 Indian Churches, 222 Day Schools, 13 Boarding Schools, and 3 Theological Training Colleges. The Church membership at the close of 1912 stood at 11,009, and the Christian Community at 31,473. In the methods of the Society, the chief place is given to Bazaar and Village preaching. Increase in membership during the past ten years, about 30 per cent. and in the Community 50 per cent. for the same period. Amongst the non-caste people great progress has been made in recent years, and Churches formed from amongst these peoples are self-supporting.

Special work amongst students is carried on in Calcutta, Dacca, Bankipore, Cuttack and Delhi, where Hostels have been erected for the prosecution of this form of work.

**EDUCATIONAL WORK.**—Ranges from Primary School to Colleges. Serampore College, the only College in India able to bestow a theological degree granted under Royal Charter by His British Majesty in 1827, and confirmed by the British Government in the Treaty of purchase of the Settlement of Serampore in 1845, and placed in 1856 by the College Council at the disposal of the Baptist Missionary Society to become a part of its

Missionary Educational operations, Arts and Theological. It was affiliated in 1857 to the newly-formed Calcutta University; reorganised in 1910 on the lines of its original Foundation with the appointment of a qualified Theological Staff on an Interdenominational basis for the granting of Theological Degrees to qualified students of all Churches.

As the only College in India granting a Theological Degree a large number of students are now resident in the splendid College Buildings. In Arts, the College prepares for the Calcutta Arts Examinations. *Principal:* Rev. G. Howells, M.A., B.O., B.LITT., PH. D.

A Vernacular Theological Institute, and High School likewise attaches to Serampore, as also at Delhi and Cuttack, for the training of native preachers.

There are 9 or 10 purely English Baptist Churches connected with the Society, but English Services are carried on in many of the stations where an European population obtains. Medical Work connected with the Society reported 2 Hospitals, 7 Dispensaries, 401 in-patients, and 73,645 out-patients for the year 1912. Two large Printing Presses for both English and Vernacular work are conducted at Calcutta and Dacca.

**THE BAPTIST ZENANA MISSION.**—Extends over the same area practically as the above; there are 75 missionaries, 336 Indian Workers,

102 Girls' Day Schools, and 5 Girls' Boarding Schools in connection with this work; 751 villages are visited annually by Teachers and Missionaries engaged in Gospel work. A large place is given to medical work, 5 Hospitals with qualified staffs and 12 Dispensaries providing for 1,004 in patients, and 93,874 out-patients for the past year. The Indian Secretary of the Baptist Missionary Society is the Rev. Herbert Anderson, 48, Ripon Street, Calcutta.

**THE CANADIAN BAPTIST MISSION.**—Was commenced in 1873, and is located in the Eastern Telugu District to the north of Madras, in the Kistna, Godavari and Ganjam Districts. There are 2, stations and 158 out-stations with a staff of 86 missionaries, including 8 qualified physicians, and 484 Indian workers, with Gospel preaching in 1,147 villages. Organised Churches number 64, communicants 9,239, and adherents 11,454 for the past year. Ten Churches are entirely self-supporting. In the Educational department are 203 village Day schools, with 7,491 children, 9 Boarding schools, 2 High schools, a Normal Training school, a Theological Seminary providing in all for 619 pupils, and an Industrial school. There are 5 Hospitals. The Mission publishes a Telugu Newspaper. Village Evangelisation is the great feature of the Mission, and stress is laid upon the work amongst women and children in particular. During the last decade membership has increased by 71 per cent. the Christian Community by 90 per cent. and scholars by 370 per cent. The Indian Secretary is the Rev. A. S. Woodburne, Narsapatnam, Vizagapatnam District.

**THE AMERICAN BAPTIST TELUGU MISSION.**—Was commenced in the year 1840, and covers large parts of Nellore, Guntur, Kistna, and Kurnool Districts, and parts of the Decan. Its main work is evangelism, but there is large Educational and Medical work in addition. There is an English Church in Madras. Telugu Churches number 147, Missionaries 121, Indian workers 1,507, and Communicants 63,271, with a nett increase of 1,000 per annum, for the past 20 years. There is a large Theological Seminary at Ramapatnam for the training of Indian preachers. In ordinary Educational work, 26 Boarding schools, 1 High schools, and 614 Day schools give instruction to 16,085 scholars. In Medical Work, 6 Hospitals report 1,067 in-patients, and 11,765 out-patients for the last recorded year. Industrial work is carried on in several stations. Corresponding Secretary, the Rev. W. T. Elmore, Ramapatnam, Nellore District.

**THE AMERICAN BAPTIST FOREIGN MISSIONARY SOCIETY,** commenced in 1814, the largest Society at work in Assam and Burma, owes its rise to the celebrated Adoniram Judson. Until 1910 the Mission was known as the American Baptist Missionary Union. There are 12 main stations in Assam, 26 in Burma and hundreds of out-stations. All forms of missionary enterprise come within the scope of the Mission. The American staff numbers 400 in all, with a worker's staff of 3,822. Communicants number 135,000 out of a total Christian community of 355,000. Organised Churches

number 1,191, of which 812 are self-supporting. Educational work is conducted on a larger scale; 2 Christian Colleges, students, 76; 5 Theological Colleges, students, 458; 8 Training Institutions, pupils, 281; 7 High schools, pupils, 5,635; 93 Boarding schools, scholars, 5,344; 5 Industrial schools, pupils, 109; 1,547 Elementary schools with 17,499 scholars.

Medical work embraces 18 Hospitals, 14 Dispensaries, with 10 qualified doctors, and 54 nurses, compounders, &c. Total patients treated in the year, 61,039. The above figures are those published for 1912-13.

The great work of the Mission continues to be evangelistic and the training of the native preachers and Bible-women, and extends to many races and languages, the most important of which, in Burma, has been the practical transformation of the Karens, whose language has been reduced to writing by the Mission. The work in Assam embraces 9 different languages, and large efforts are made amongst the employers on the tea plantations. The Mission Press at Rangoon is said to be the largest and finest in Burma.

**Assam Secretary,** Rev. Judson Tuttle, M.A., Gauhati, Assam.

**Burma Secretary,** Rev. A. C. Darrow, Moulmein, Burma.

**THE TASMANIAN BAPTIST MISSION.**—With 3 missionaries, is established at Siragunge, E. Bengal. Secretary: Rev. E. T. Thompson, Mission House, Siragunge.

**THE AUSTRALASIAN BAPTIST MISSIONARY SOCIETIES.**—Representing Australia, N. Zealand, and Tasmania, are working in Bengal with a staff of 36 missionaries, and 103 Indian Workers. There are 17 organised Churches, 1,974 Communicants, and a Christian community of 3,611. Educational work comprises 2 High schools, 5 Boarding schools, 2 Industrial and 62 Elementary schools, with 1,912 pupils in all. In Medical work, 1 Hospital, and 3 Dispensaries provide for 31,649 in and out-patients. Secretaries: Rev. C. H. Harvey, Calcutta; Dr. C. S. Mead, B.A., (Faridpur Mission) Orakandi, Faridpur District; Miss E. L. King, Rajbari; and the Rev. E. T. Thompson, (Tasmanian Mission) Siragunge.

**THE STRICT BAPTIST MISSION.**—Has 8 Missionaries, and 64 Indian Workers in Madras W. and the Trichy District. Communicants number 80; organised Churches 4; Elementary schools 20, with 1058 pupils.

**Secretary,** Rev. E. A. Booth, Kilpauk, Madras, W.

**AMERICAN BAPTIST, BENGAL-ORISSA MISSION** commenced in 1836. Area of operation, Midnapore and Balasore districts of Lower Bengal. Mission staff 29, Indian workers 264. One English Church and 74 Vernacular Churches, Christian Community 5,000. Educational; One Theological High School, and 150 Elementary schools, pupils 4,880. Two Industrial schools for weaving and carpentry, &c. The Vernacular Press of this mission printed the first literature in the Santali Language. **Secretary,** Rev. Howard B. Murphy, N. D. Midnapore.

# PRESBYTERIAN SOCIETIES.

**THE UNITED PRESBYTERIAN CHURCH OF IRELAND MISSION.**—Operates in Gujarat and Kathiawar with a staff of 31 Missionaries of whom 5 are qualified doctors and an Indian staff of 628 including school teachers. There are 25 Organised Churches a communicant roll of 1,442, and a Christian community of 4,903. In Medical work there are 2 Hospitals, 5 Dispensaries, with 770 in-patients and 22,622 out-patients. The Mission conducts 3 High schools, 3 Anglo-vernacular schools, and 123 vernacular schools affording tuition for 6,530 pupils, 2 Orphanages, a Divinity College at Ahmedabad, and a Mission Press at Surat. The Mission has made a speciality of farm colonies, of which there are about a score in connection with it, most of them thriving.

The Jungle Tribes Mission with 3 missionaries is a branch of the activities of the above, working in the Panch Mahals and Rewa Kantha districts, with farm colonies attached. Secretary, Rev. B. R. Johnson, B.A., Mission House, Broach.

**THE UNITED PRESBYTERIAN CHURCH OF N. AMERICA.**—Siakot Mission was established in 1856 operating in the extreme North of the Panjab, and is practically the only Mission working amongst the 9,374 cities and villages of that district. Its missionaries number 75. Indian workers 649. There are 53 Organised Churches with 499 outstations, a membership of 29,525, and a Christian community of 54,246; Women's Societies number 32; a Theological Seminary and a College; 4 High schools, 8 Middle schools, 2 Industrial schools and 191 Primary schools, containing in all 11,347 pupils. In Medical work, there are 4 Hospitals and 7 Dispensaries with 1,460 in-patients, and 53,293 out-patients for 1912. Secretary, Rev. W. E. Nicoll, Rawal Pindi.

**THE AMERICAN PRESBYTERIAN MISSION** operates in 3 main sections, known as the Panjab, North India, and Western India Missions. The American staff numbers 216 and Indian staff 802. There are 29 main stations and hundreds of out-stations. Communicants number 7,319, Christian community 36,978. Educational work as follows: 2 Christian Colleges, students 608; 1 Theological Institution, pupils 61; 7 Training Institutions, pupils, 120; 12 High schools, scholars, 2,040; 17 Boarding schools, scholars, 1,220; 3 Industrial schools, pupils, 29; 150 Elementary schools, scholars, 4,356. Medical work; 8 Hospitals, 14 Dispensaries, with staff of 30, in-patients, 3,773, and out-patients 1,03,172 for last year. The Hospital at Miraj, under the care of Dr. W. J. Wanless and Dr. C. E. Vail is well known throughout the whole of S. W. India, and the Forman Christian College at Lahore is equally well known and valued in the Panjab. The Allahabad Christian College is growing rapidly and its mechanical and agricultural departments have become increasingly prominent. Woodstock College for women at Lapdour, Mussoorie, Principal Rev. H. M. Andrews, M.A., is one of the largest and most valuable institutions of this description in Northern India.

Secretary.—

Punjab Mission, Rev. R. N. Carter, M.A., Moga, Ferozepore District.

North India Mission, Rev. Henry Forman, Morar, Gwalior.

West India Mission, Rev. Henry G. Howard, Kadoli, S. M. C.

The above particulars are those published for 1912-13.

**THE NEW ZEALAND PRESBYTERIAN MISSION.**—Commenced as recently as 1910 at Jagadhri, Panjab. Secretary, Miss A. E. Henderson, Jagadhri.

**THE CANADIAN PRESBYTERIAN MISSION.**—Commenced in 1873 is firmly established in 11 main Stations in the Indore, Gwalior, Rutlam and Dhar Native States, and in the wild Phil District at Anukhut. The Mission Staff numbers 67, Indian workers 205; organised Churches 11; Communicants 1,017, baptised adherents 14,000 and additional Christian community of 4,000. Educational work comprises 25 Elementary schools, pupils 1,300; Girls' and boys' High school, Theological Seminary and Christian Mission College at Indore, together with boys' Industrial school, womens' Industrial Home, school for the Blinds and girls' Orphanages. Industrial shop, are at Russelpura. The Medical work is large, mainly among women, 3 Hospitals, 14 Dispensaries with a total staff of 30, treated 1,46,945 patients during the past year.

Secretary, Rev. J. Fraser Campbell, D. D., Rutlam, C. P.

**THE GERMAN EVANGELICAL SYNOD FOR N. AMERICA.**—Commenced work in the C.P. in 1865. The Mission Staff numbers 22, Indian workers 161; Communicants 2,212, total Christian Community 4,200; organised Churches 35; one Christian College and 2 Theological Seminaries with 210 pupils; 3,368 scholars are taught in 72 schools. Total number of preachers employed, 69. There are 1 Hospital, 4 Dispensaries with 18,852 patients for the year.

Secretary: Rev. O. Nussman, Sakti, C.P.

**THE WELSH CALVINISTIC METHODIST MISSION (OR WELSH PRESBYTERIAN MISSION)** established in 1840 with a staff of 37 Missionaries, 511 Native workers occupies stations in Assam in the Khasia and Jaintia Hills, the Lushai Hills and at Sylhet and Cachar. The Khasia language has been reduced to writing, the Bible translated, and many books published in that language by the Mission. Communicants number 9,316, the total Christian community 30,000; organised Churches 391; self-supporting Churches 30. Elementary schools number 407, scholars 10,163; Boarding schools 3, scholars 820, in addition to 1 Industrial school, 4 Training institutions and 1 Theological Seminary. One Hospital and 3 Dispensaries provided for 6,611 patients for the past year.

Secretary: Rev. J. Ceredig Evans, Shillong.

**THE ARCOT MISSION** of the Reformed Church in America (Dutch), organised in 1853 occupies the Arcot and Chittoor districts in S. India with a staff of 29 Missionaries, and



504 Indian ministers and workers. Churches number 19. Communicants 3,936, total Christian community 11,293; Boarding schools 11, scholars 528; Theological school 1, students 37; High schools 4, scholars 1,219; Training schools 2, students 41; Industrial schools

2, pupils 95; Elementary schools 181, scholars 6,945. Three Hospitals, 7 Dispensaries with staff of 38, provided for 2,217 in-patients and 82,052 out-patients for the past year.

Secretary: Rev. H. J. Scudder, M.A., & B.D., Punganur, S. India.

### CONGREGATIONAL SOCIETIES.

**THE AMERICAN BOARD OF COMMISSIONERS, FOR FOREIGN MISSIONS.**—Has two large Missions the American Marathi Mission, and the Madura Mission. The Marathi Mission includes a large part of the Bombay Presidency, with centres at Bombay, Ahmednagar, Satara and Sholapur, was commenced in 1813, the first American Mission in India. Its activities are large and varied. The staff at the beginning of 1913 consisted of 47 missionaries and 529 Indian workers operating in 144 outstations exclusive of Bombay City. Organised Churches number 60 with 7,699 communicants, and 6,273 adherents. There is a Leper Church at Sholapur. The Educational work embraces 20 Boarding schools with 2,151 pupils, 152 Ordinary schools with 4,830 boys and girls under instruction, three-fifths of which are non-Christians. A large Theological Seminary at Ahmednagar trains for the Indian Ministry. Zenana work and Industrial work are vigorously carried on, the latter embracing carpentry, weaving and lace work. Much work is done in so-called famine districts. A School for the Blind is conducted on both Educational and Industrial lines. Upwards of 43,786 patients were treated in the Hospitals and Dispensaries of the Mission last year. The Mission has for 70 years published the "Dnyanodaya," the only combined English and Marathi Christian weekly newspaper. Special evangelistic work is carried on amongst the tribes known as the Bhils and Mangs. This Mission was the first to translate the Christian Scriptures into the Marathi tongue. The Arcot Mission commenced under the American Board in 1851 was transferred to the Reformed Church of America.

**THE MADURA MISSION**—In the S. Madras District, commenced in 1834, with a Staff of 44 missionaries and 774 Indian workers, operates in 10 stations and 355 outstations, and has a communicant roll of 7,398 and 23,336 adherents and 35 Organised Churches, many of which are entirely self-supporting and self-governing. Schools number 261 with 12,372 pupils. There is a Christian College at Madura, as also Hospitals for men and women; at Pasmal are a Theological Institution, Industrial school and Teachers' Training school. The Secretary of the Marathi Mission is the Rev. W. Hazen, Bombay; and of the Madura Mission, the Rev. J. S. Chandler, Madura.

**THE SCANDINAVIAN ALLIANCE MISSION**—embraces two Conferences, one in the Himalayas, and the other in Khandesh. The total Mission Staff is represented by 30 missionaries, and 43 Indian workers. There are 208 Communicants, 10 Churches and a Christian Community of 593. A Theological school, a High school, a Boarding school, 2 Industrial and 9 Elementary schools provide for 257 pupils. Secretaries: Rev. E. H. Owen, Gangtok P.O., Sikkim, and the Rev. Anton Dahlgren, Mission House, Navapur, W. Khandesh.

**THE LONDON MISSIONARY SOCIETY** commenced work in India in 1798 and occupies 10 centres in N. India, 12 in S. India and 7 in Travancore. The Mission engages in every form of Missionary activity. The European staff numbers 223, Indian workers 2,004; Organised Churches, 490; Communicants 13,748 and Christian community 116,575. There are 4 Christian Colleges, students 159; 3 Theological Institutions, students 41; 4 Training Institutions, pupils 114; 22 High schools, pupils 4,849; 25 Boarding schools, scholars, 1,167; 9 Industrial schools, pupils, 116 and 862 Elementary schools with 36,775 scholars. In Medical work Hospitals number 15, Dispensaries 15, qualified doctors 10, and 3,997 in-patients and 1,30,220 out-patients for the year.

The main centres of the Mission in N. India are at Calcutta, Benares and Almora. The Bhowanipur Institution at Calcutta is now a first grade College. Evangelistic work is carried on amongst the thousands of pilgrims visiting Benares, and Almora is noted for its Hospital and Leper Asylum. Special efforts are made amongst the Nama Sudras and the aboriginal tribes known as the Majhwars, Cherosa and Pankas. The S. India district is divided into the Kanarese, Telugu and Tamil areas, with 12 stations and 472 outstations. At Nagercoil, (Travancore) is the Scott Memorial College with 985 students, a Church and congregation said to be the largest in India, and a large Printing Press, the centre of the S. Travancore Tract Society.

N. India Secretary, Rev. W. R. Lequesne, Calcutta.

S. India Secretary, Rev. E. P. Rice, B.A., Bangalore.

### ALL-INDIA MISSIONS.

**THE CHRISTIAN AND MISSIONARY ALLIANCE**—Dates from the year 1893 under the name of the India Missionary Alliance, but a number of its missionaries were at work in Berar Province much earlier. The work is confined to the provinces of Berar, Khandesh and Gujerat. There is a staff of 76 missionaries and 85 Indian workers. The number of Mission stations is 21, with additional outstations. There are 4 orphanages, 2 for boys and

2 for girls; 3 training schools for Indian workers' and 1 English congregation at Bhusawal. Secretary: Rev. E. R. Carter, Khamgaon, Berar.

**THE CHURCH OF THE BRETHREN (AMERICAN)**—Opened work in 1895, and operates in the Southern part of Gujerat, Khandesh, and Thana Districts. Its staff numbers 29 including missionaries' wives, and 105 Indian workers. The baptised (immersed) membership stands at 1,125; education is carried on in 2 Girls' Board

ing schools, 4 Boarding schools for boys, and 81 Village Day schools. Industrial work is connected with four of the schools, and a Farm Colony is established at Umballa.

**THE POONA AND INDIAN VILLAGE MISSION.**—Founded in 1893 operates in the Poona, Satara and Sholapur Districts, with 23 European and 32 Indian workers. The number of Indian Christians is 40. The main work is evangelism of the villages, with Women's Zenana work, and Village schools. There are 4 Village Dispensaries, and a Hospital at the headquarters of the Mission, Nasrapur, in the Bhore State. *Secretary*: Mr. J. W. Stothard, Nasrapur, Poona District.

**THE AMERICAN CHURCHES OF GOD MISSION.**—Has two missionaries at Bogra, Bengal.

**THE INDIAN CHRISTIAN MISSION.**—Founded in 1895 has ten Organised Churches, 3 Missions, 37 Indian workers, 511 Communicants, and 19 Primary schools in the Ellore district, S. India. *Secretary*: Miss Bryant Ellore.

There are 3 **PENTECOSTAL MISSIONS** at work. The Pentecostal Mission in W. Khandesh and Thana Districts; the Pentecostal Church of the Nazarine Mission at Buldana, Berar, and the Pentecost Bands of the World Mission with a Boys' Orphanage at Dondi Lohara, C. P.

**THE INDUSTRIAL EVANGELISTIC MISSION.**—Is engaged mainly with orphan children and owes its rise to the famine of 1897 and 1900. It numbers about 120 Christians in all stations, the principal of which is Dehra Dun. *Director*: Pastor J. C. Lawson, Dehra Dun.

**THE BIBLE AND MEDICAL MISSION.**—Was established at Lohaghat, Almora, in 1910. Amongst the faith missions are the Vanguard Mission at Sanjan, Thana District, with 6 Missionaries; the Hephizibah Faith Mission, with 6 Missionaries, head quarters at Jaglunathpur, Bengal; and the Church of God Mission with 7 Missionaries at Lahore. The Burning Bush Mission has a staff of 8 Missionaries at Allahabad. The Tehri Border Village Mission is the only Christian enterprise in the Himalayan Native State of that name, its agents are stationed at landour, and have translated portions of the New Testament into the Tehri-Garhwali language.

**THE TIBETAN MISSION.**—Has 5 Missionaries with headquarters at Darjeeling, and Tibet as its objective. *Secretary*: Miss J. Ferguson, Darjeeling.

**The Indian Missionary Society of Tinnevely (DORNAKAL MISSION).**—Opened in 1904, operates in the Warangal District of the Nizam's Dominions. It is the missionary effort of the Tamil Christians of Tinnevely. There are now 1,400 Christians in 37 villages. *Secretary*: Mr. J. Anbudaiyan, B.A., L. T., Palamcottah.

**THE MISSION TO LEPERS.**—Founded in 1874, is an undenominational and international Society for the establishment and maintenance of Asylums for Lepers and Homes for their untainted children, working largely in India, China, and Japan. Its work in India is carried on through co-operation with 29 Missionary Societies. The Mission now has 40

Asylums of its own with over 3,500 inmates, and is aiding or has some connection with work for lepers at 20 other places in India. In the Mission's own and aided Asylums there are about 3,100 Christians. The total number of lepers reached by the Mission in India is about 5,000.

An important feature of the work of the Mission is the segregation of the untainted or healthy children of lepers from their diseased parents. 500 children are thus being segregated and saved from becoming lepers.

The Mission very largely relies on voluntary contributions for its support. *Secretary*: Mr. W. H. P. Anderson, 160, Hornby Road, Bombay.

**THE REGIONS BEYOND MISSIONARY UNION.**—An interdenominational Society, commenced work at Motihari, Behar, in 1900, and now occupies 4 stations and 7 outstations in the Champaran and Saran Districts, with a staff of 12 Europeans, and 27 Indian workers. There are 21 Elementary schools, with 517 pupils, a girls' and a Boys' Orphanage and Boarding school, communicants number 50.

**THE NATIONAL MISSIONARY SOCIETY OF INDIA.**—established 1905, with a staff of 21 Indian Missionaries, operates in Karwar, Okara (Punjab) and Omahur (Madras). Communicants number 125; Christian community 688; Elementary schools 3; Dispensary patients, 9,448. *Secretary*: K. T. Paul, Esq., B.A., L.T., Madras, S. W.

**THE SEVENTH DAY ADVENTISTS.**—Established 1895, have 44 Missionaries in various parts of India. Communicants, 221; Christian community, 1,034; Churches, 2; Elementary schools, 4; Hospitals, 2; Dispensaries, 2; patients 1,156. *Secretary*: Rev. J. L. Shaw, Kirkville House, Mussoorie.

**THE AMERICAN MENNONITE MISSION.**—Established 1900, works in the C. Provinces Mission staff numbers 17, Indian workers 63; Communicants 50; Church Members 545 Training Institutions, 2; High schools and Boarding schools 5; Elementary schools 8; total pupils 770; Hospital and 3 Dispensaries with 4,847 patients, *Secretary*: Rev. M. C. Lapp, P. O., Dhamlari, C. P.

**THE MENNONITE MISSION GENERAL CONFERENCE.**—started in 1901 in the C. Provinces. Workers number 10; Leper, Medical, Orphan and Village work carried on. From the Leper Asylum 92 have been baptised. *Secretary*: Rev. P. W. Penner, Jangir, C.P.

**THE KURKU AND CENTRAL INDIA HILL MISSION.**—Established 1890 in the C. P. and Berar, has a mission staff of 22, Indian workers 17; Churches 7, Communicants 105; Christian community 550; 2 Boarding, 1 Industrial and 4 Elementary schools, with 114 pupils. *Secretary*: Mr. Carl Wydner, Ellichpur, Berar.

**THE CEYLON AND INDIA GENERAL MISSION.**—Established 1893, occupies stations in India in the Coimbatore and Anantapur Districts. Mission staff, 20; Indian workers, 50; Churches 9, with Communicants 256, and Christian community 485; Orphanages 3; Theological, and Training school; Elementary schools 14; pupils 330.

*Secretary*: Rev. D. Lagon, Coonoor, Nilgiris.

**THE BOYS' CHRISTIAN HOME MISSION**—Owing its existence to a period of famine, was commenced in 1890. Mission staff 10, Indian workers, 20. There are two Elementary schools with 100 children; Orphans' and Widows' Homes, and 210 in the Homes at Dhond and Bahraich, where Industrial Training is given. *Secretary*: Mr. Albert Norton, Dhond, Poona District.

### Ladies' Societies.

The Ludhiana Zenana and Medical Mission has its Hospital, 2 Lady Doctors, and Dispensary at Ludhiana and Branch Dispensaries with 11 nurses, teachers and Biblewomen at Sill and Phillour. *Secretary*, Miss Greenfield, Ludhiana.

The Missionary Settlement for University Women was founded in Bombay in 1895 to reach the higher class of Indian ladies, its activities now include a hostel for women students, in addition to educational, social, and evangelistic work. *Secretary*, Miss Dobson, Girgaum, Bombay.

The Mukti Mission, the well-known work of Pandita Ramabai enables upwards of 350 widows, deserted wives and orphans to earn a comfortable living by means of industrial work organised by the Pandita, supported by a good staff of Indian helpers. A large staff of European Missionary Ladies do evangelistic work in the surrounding Kodaikan, Poona District..

### Disciple Societies.

The India Mission of the Disciples of Christ. (Foreign Christian Missionary Society of Cincinnati, and Christian Women's Board of Missions of Indiana combined) commenced work in 1882; its area Central and United Provinces; number of Indian Churches 13, and immersed communicants 1,266. Its staff, including Missionaries' wives, 67; Asst., missionaries 7, and Indian Worker's staff 310. There are 7 Hospitals, 12 Dispensaries, with 50,155 inpatients and outpatients for the past year. Three Orphanages and an Industrial Home show 474 inmates. In connection with the Industrial work a farm of 100 acres has been taken at Damoh. There are 6 Middle schools, 37 Primary schools with 3,439 scholars. An active Zenana work is carried on. A small work known as the Australian Mission is under the auspices of the "Disciples" at Baramati, Poona, and also at Daltonganj, W. Bengal. *Secretary*, Rev. W. B. Alexander, B.A., Damoh, C. P.

### Udenominational Missions.

The Central Asian Mission, with a Church, Dispensary and School is found on the N.-W. Frontier, conducted on the lines of the China Inland mission, and has Kafiristan as its objective.

The Friends' Foreign Missionary Association with Headquarters at Hoshangabad, Central Provinces, commenced in 1874. Work has recently been opened up in the Gwalior and Bhopal States. There are 5 Churches, 27 Missionaries, 195 members, Orphanages for Boys and Girls, 1 Anglo-Vernacular school, and

15 Day schools connected with the Mission, in addition to a self-supporting weaving community at Itarsi, and Industrial Works and a Farm Colony at Hoshangabad. *Secretary*, Mr. Henry I. Robson, Sohagpur, C. P.

The American Friends' Mission with 5 Missionaries is working at Nowgong. *Secretary*, Miss D. Pistler, Nowgong C. I.

The Old Church Hebrew Mission was established in 1858, in Calcutta, and is said to be the only Hebrew Christian Agency in India. *Secretary*, J. W. Pringle Esq., Calcutta.

**THE OPEN BRETHREN**.—occupy 40 stations in the U. Provinces, Bengal, S. Maratta, Godavari Delta, Kanarese, Tinneveli, Malabar Coast, Colimbatoor and Nilgiri Districts. They hold an annual Conference at Bangalore.

### Lutheran Societies.

The American Evangelical Lutheran Mission. General Council, founded in 1841 for the Godavari and Kistna Districts, has its Headquarters at Rajamundry. Its staff consists of 24, including Missionaries' wives and Lady Doctors, with 450 Indian Workers. The membership is 19,377. There are Boys' and Girls' Central Schools, Mission Press, and Book Depot at Rajamundry, and a High School at Peddapur. *Chairman*, The Rev. Rudolf Arps, B. D., Dowlaiswaram.

The 'General Synod' Section of the above, has its headquarters in Guntur, founded in 1812. Its Christian community numbers 14,074, with 15,406 communicants, 30 missionaries inclusive of wives, and 748 Indian workers, showing an increase of 67 per cent. during the past ten years. The following institutions are connected with the Mission, a second grade College, High school for Girls, Hospital for women and children, Normal training School, and Industrial School. *Secretary*, the Rev. Victor McCauley, Guntur.

The Evangelical National Missionary Society of Stockholm, founded in 1877, occupies the districts of Betul, Chhindwara, and Saugor in the C. Provinces. There are 1,464 Church members and 11 Indian Churches. The staff numbers 40, including women workers, with an Indian staff of 118. Schools number 39 with 1,222 children, together with 'Anglo-Vernacular, and 1 training school, and a Hospital. *Secretary*, Rev. A. G. Danielsson, D. D. Chhindwara, C. P.

The Hermannsburg Evangelical Lutheran Mission began its work in India in 1866 and operates in the South Nellore, the East Chittoor, and South East Cuddapa Districts. There are 22 Indian Churches; 18 European Missionaries and 150 Indian workers, Church members number 3,107. Women's work is done in 3 stations, with a large Industrial school for 70 girls, in a fourth, in addition to Zenana and Educational work. There are 80 Lower grade Elementary schools, 1 High school, 1 Lower Secondary, and 2 Higher grade schools, and a Theological Seminary and Training school. A Leper Asylum is stationed at Kodur with a Dispensary, and a large Industrial school at Nayadupeta. *Secretary*, Rev. H. Harms, Nayadupeta, Nellore dist., Madras.

**The Schleswig Holstein Evangelical Lutheran Mission**, commenced in 1881, operates in the Jeypore District. Fruitful work is carried on amongst the Odisia Hill Tribes, the Konds, and the Dombo Caste. There are 12 stations, a total Missionary Staff of 49, with 133 Indian workers. The growth in the Christian population has been from 1,530 in 1901 to 14,192 in 1913. Communicants number 3,615, and Catechumens 7,862. Education work comprises 1 Theological Seminary, 1 Secondary, 1 Industrial, and 100 Elementary schools, providing for 2,144 pupils. There are 9 Dispensaries with 50,030 patients for the year. English Services are held in the Mission Church at Jeypore. *Secretary*, Rev. J. Th. Timmecke, Koraput, Vizagapatam.

**LEIPZIG EVANGELICAL LUTHERAN MISSION, GERMAN DIOCESE**.—The mission commenced in 1834, and is confined to the Tamil speaking areas, chiefly in the Madras Presidency, with an Indian Minister and Church, in addition, in Rangoon. The total European staff numbers 33, ordained Indian Ministers 24 and 109 Indian workers; Organised Churches, 35; places of worship, 221; Baptised membership 19,558. There are 133 boys' schools (including a Training, and Industrial and 4 Secondary schools) and 23 Girls' schools including an industrial school. The teaching staff numbers 558 and pupils 10,394. Zenana work is actively prosecuted. A Printing Press and Publishing House is established at Tranquebar. *Secretary*: Rev. H. Goebler, Kilpauk Madras.

**THE BASEL MISSION** was commenced in 1834, and occupies 26 main stations and 111 out-stations in the Coorg, S. Malabar, Nilgiris, and N. and S. Canara districts of S. W. India. The total European Staff numbers 159 with 1,023 Indian workers. There are 60 organised Churches, with a membership of 19,500. Educational work embraces 204 schools (including 2 Theological, 9 Boarding and 4 High schools) with 15,003 Elementary and 3,150 Secondary school pupils and 831 scholars in Boarding Institutions and Orphanages. There are good Hospitals at Betgiri and Calicut under European doctors with 3 branch hospitals and 4 Dispensaries connected; 66,504 patients were treated last year. There is a Lepet Asylum at Chevayur.

The Industrial work of the Mission is second to none in India and comprises 17 establishments, embracing one mechanical establishment of a first rate order at Mangalore, 2 Mercantile schools, 7 Weaving and 7 Tile work establishments in the Kanara and Malabar districts; employees number 3,633. A large Printing Press at Mangalore issues publications in the Kanarese, Malayalam, Tulu and English languages.

*Secretary*, Rev. P. Sengle, Nettur, Tellicherry.

**THE CHURCH OF SWEDEN MISSION**.—Was founded in 1894, and operates in the Madras, Tanjore, Trichinopoly and Ramnad Districts. Since 1901 the Mission works independently, tho' in close relationship with the Leipzig Missionary Society. The staff numbers, baptised membership 2,584; Schools 56 with 2,902 pupils. *Secretary*, Rev. D. Bexell, Madura.

**THE MISSOURI EVANGELICAL LUTHERAN MISSION**—is located in Arcot and Travancore

with a staff of 11 Missionaries. One Training school, 46 pupils, and 28 Elementary schools with 1,209 pupils are connected with the Mission.

*Secretary*, Rev. G. O. Kellerbauer, Ambur, N. Arcot.

**THE DANISH EVANGELICAL LUTHERAN MISSION**,—established 1863 in Madras and S. Arcot Districts has a total staff of 28 Missionaries and 80 Indian workers; Communicants 648, Christian community, 1550; 2 High schools, pupils 410; 3 Boarding schools, scholars, 146; 4 Industrial schools, pupils, 79; 35 Elementary schools, 1500 scholars; Dispensary patients, 15,138.

*Secretary*, Rev. John Bittmann, 38 Broadway, Madras.

**THE GERMAN EVANGELICAL LUTHERAN (GOSSNER'S MISSIONS)**—founded 1842, occupies stations in Bengal, Bihar and Assam the Mission staff numbers 92, Indian workers 371; Communicants 25,612 and Christian community over 100,000; organised Churches, 382; Theological and Training schools, pupils 65; Boarding schools 80, scholars 2,392; Elementary schools 176, scholars 3,750.

*Secretary*, Rev. Paul Wagner, Purulia, B.N. Rly. Manbhum, Bengal.

**THE SANTHAL MISSION (INDIAN HOME MISSION TO THE SANTHALS)**—founded 1867, works in the Santal Pargannas, Goalpara (Assam) and Dinajpur. Work is principally amongst the Santals. The Mission staff numbers 17, Indian workers 264; Communicants, 284, Christian community, 30,000; organised Churches, 30; Boarding schools, 2, pupils 282; Elementary schools, 31, pupils 535.

*Secretary*, Rev. P. O. Boddling, Dumka, Santal Pargannas.

### Methodist Societies.

The Methodist Episcopal Church began its Indian Mission in 1857, and with the exception of Assam, and the N. W. Frontier Provinces is now established in all the political Divisions of India. Its number of baptised Christians stands at 251,275, under the supervision of 240 ordained and 900 unordained Ministers. Schools of all grades number 1,569 with 39,087 students, Sunday School scholars stand at 126,000, and young people's societies at 604, generally known as Epworth Leagues. Thirty Anglo-Indian Congregations are found in the larger Cities, with one College, 6 High schools, and numerous Middle schools for this class. For Anglo-Vernacular Education the mission has 3 Colleges, 12 High schools and 62 schools of lower grade. The net increase from the non-Christian races has been at the rate of 15,000 per annum, for the last decade. The Isabella Thoburn Training College at Lucknow is a large Institution. There are large printing presses at Calcutta, Madras and Lucknow.

In Burma there are 9 schools, with 1,484 pupils, a large Boarding and Day school for European Girls at Rangoon, a hill station Boarding school for Girls at Thandaung, and an Anglo-Indian Church at Rangoon.

While financially supported by the Board of Foreign Missions of the American Methodist Episcopal Church, ecclesiastically the Church in India is independent of foreign control,

being under the supervision of its own bishops, viz., *Bishop F. W. Warne*, Lucknow. *Bishop J. E. Robinson*, Bangalore, and *Bishop J. W. Robinson*, Bombay.

The American Wesleyan Church with 2 Missionaries, has in recent years taken over an independent Mission at Pardi and Damam, Gujerat District. *Secretary*, Rev. A. E. Ashton, Pardi.

The Reformed Episcopal Church of American (Methodist) at Lalitpur and Lucknow U. P. has 2 Missionaries, 4 Outstations, 2 Orphanages, and a membership of nearly 100.

THE WESLEYAN METHODIST MISSIONARY SOCIETY commenced work in India in 1817 (Ceylon in 1814). The Mission is organised into 10 District Synods with 3 Provincial Synods. There is a large English work connected with the Society, 8 ministers giving their whole time to Military work and English churches.

The districts occupied include 64 main stations in Bengal, Madras, Mysore, Bombay, Punjab, Central Provinces, Hyderabad (Nizam's Dominions) Trichinopoly and Burma. The European Staff numbers 190 with 1,986 Indian workers; Communicants 16,822, and total Christian community 48,000. Organised Churches, 93.

Educational work comprises 3 Christian Colleges, students, 372; 9 Theological Institu-

tions, pupils 80; 11 Training Institutions, pupils, 96; 13 High Schools, pupils, 4,925; 71 Boarding schools, scholars, 2,478; 10 Industrial schools, pupils, 602; 1,152 Elementary schools, with 73,703 scholars. In Medical work there are 12 hospitals, 20 dispensaries, 18 qualified doctors, 2,984 in-patients and 75,703 out-patients for the year. Remarkable movements have taken place amongst the non-caste Madigas and Malas (Hyderabad). Every phase of missionary enterprise is undertaken by the Mission.

The above particulars are those published for 1912-13.

*General Superintendent*, Rev. G. W. Oliver, 16 Sudder Street, Calcutta.

The Women's Foreign Missionary Society of the M. E. Mission is divided into 7 Conferences and is coextensive with the main work of the Mission. Upwards of 172 lady Missionaries are engaged in Educational, Zenana, and Medical work. The Secretary for the Bombay Conference is Miss A. A. Abbott, 47 Mazagon Road, Bombay.

THE FREE METHODIST MISSION—of N. America, established 1885, operates in Berar with a Staff of 14 Missionaries and 17 Indian workers. Organised churches, 3, Communicants 70; One Industrial and 3 Elementary schools, with 100 pupils.

*Secretary*, Miss L. D. Calkins, Yeotmal, Berar.

### Royal Army Temperance Association.

In 1862 there was started among the British troops in Agra a small Society, under the leadership of Rev. G. Gelson, Baptist minister who after a short time took the name of the Soldiers' Total Abstinence Society.

For some ten years the Society struggled with varying success, spreading to other Garrison Stations, but at the end of that time, though it had obtained recognition from the Horse Guards, and was the first Society whose Pledge was so recognised, the membership was not more than 1,200. In the year 1873, however, through the influence of the then Commander-in-Chief, the work was placed on a firmer footing, the Rev. Gelson Gregson gave up his whole time to it, and by accompanying the troops through the Afghan War, making an extended tour through Egypt, and bringing the work into close touch with troops both during peace and war, in the year 1886, when he left the Society, it numbered about 11,000 members. He was followed by a Madras Chaplain, who after two years gave place to the Rev. J. H. Bateson. In 1886 H. E. Lord Roberts, Commander-in-Chief, organised his Scheme for Regimental Institutes, which have had a wonderful effect on the life of British soldiers in the East; and the Total Abstinence Society was so far incorporated into the scheme as to be allowed ample accommodation, and many practical benefits, in every Unit. At the same time the name was changed to that of the Army Temperance Association, and the work of various societies thus linked together, under one organisation. The effect has been more than even the inaugurator himself ever hoped for. The membership rose steadily from that date and still increases.

GROWTH OF THE SOCIETY.—In 1889 there were 12,140 members; in 1899, 20,688; in 1909,

30,220, while in 1912, the total was 33,000, or over 42 per cent. of the total garrison in India. In 1908, the Secretary having retired after 20 years' work, the Rev. H. C. Martin, M.A., a Chaplain in Bengal, was selected by H. E. Lord Kitchener, to the post of Secretary. Twenty years ago, the Association, which has now for some years been the Royal Army Temperance Association, with the Patronage of King Edward VII, and later of the King Emperor, George V., organised a similar Society in Great Britain, with headquarters in London, from which the troops in South Africa, the Mediterranean, etc., are controlled, so that the whole British Army receives the attention of the Association.

VARIED ACTIVITIES.—What primarily has been the effort of the Association, namely the decrease of Intemperance, and promotion of sobriety among soldiers has gradually grown into work of every kind, "in the interests of soldiers; promotion of sport, occupation of spare time, assistance towards employment in Civil Life, advice and information on the subject of Emigration, provision of Enfranchisement, all tend to enlist the support of officers and men in the Association, and add to its value to them, and to the efficiency of its work, generally. The wonderful change that in late years has taken place in the character of the British Army, in India especially, is due to various causes, including the increased interest in games and sports the spread of education, the different class of men enlisted, and so on, but the R. A. T. A. has always been given its due share among other causes, by all authorities and Blue Books, and particularly by Officers Commanding Divisions, Brigades and Units. These changes in conduct are seen most

plainly in the increased good health of the Army in India.

**EFFECT IN THE ARMY.**—In the year 1889, 1,174 British soldiers died in India, and 1,800 were invalided unfit for further duty; in 1910, only 330 died, and 484 were invalided. In 1889, 688 underwent treatment for Delirium tremens, in 1910, only 37. In conduct the same difference is to be found; as late as 1901 as many as 545 Courts Martial were held on men for offences due to excessive drinking; in 1908 only 217. In 1904, 2,231 Good conduct medals were issued; in 1910, there were 4,581. In regard to the character of the men themselves who become members of the Association, during their service, we find that in 1912, 59 per cent. on transfer from the Colours obtained Exemplary characters, and 93 per cent. either Exemplary or Very Good; the remainder were for the most part men who, after some years of heavy drinking, had towards the end of their service been persuaded to try and reform themselves, but not soon enough to avoid the consequences of previous excess.

**ORGANISATION.**—Recent movements of the Association prove it to have lost none of its energy; as a Memorial of the Jubilee of its work, and of the visit to India of their Majesties the King Emperor and Queen Empress, the Association is erecting a large Purlough Home in Northern India, at a cost of a lakh of Rupees, while in order to strengthen its work in regard to Emigration, the Secretary has this year been sent on a tour of Australia where definite arrangements have been made for the reception and settlement of ex-soldiers, a number of whom have already proved their fitness as Colonial settlers. The following is the organisation of the Council and management:—

*Patron*, His Majesty the King Emperor.

*President*, His Excellency the Commander-in-Chief.

**Council.**—

The General Officers, Heads of Departments, Army Headquarters.  
The General Officers Commanding Divisions.  
Two Officers Commanding Regiments.  
Officers of the R. A. M. C. and I. M. S.  
Two Regimental Quarter Masters.  
Representatives of the various Churches.

**Executive Committee.**—

The Secretary, Army Department.  
The Adjutant-General.  
The Quarter-Master General.  
The Director-General, Military Works.  
The Military Secretary to the C-in-C.

*General Secretary*, Rev. H. C. Martin, M.A.

*Treasurer*, Mr. F. L. Shearman.

*Auditor*, Mr. H. C. O'Brien.

*Bankers*, Alliance Bank of Simla.

*Head Office*, Middlelands, Simla.

*Official Organ*, "On Guard," published monthly. (Rs. 3 per annum.)

**THE ANGLO-INDIAN TEMPERANCE ASSOCIATION.**—Founded by the late Mr. W. S. Caine, M.P., is a Home Association which has been the means of establishing a net work of Temperance Societies throughout the Indian Empire, and has provided a common platform upon which Christians, Hindus, Mahomedans

and Parsis unite for the moral elevation of the Indian peoples. There are 280 Indian Societies affiliated with the Association. The President is Sir J. Herbert Roberts, Bart., M.P. and Secretaries, Sir Bhalchandra Krishna, Kt., L.M. (Bombay) and Mr. John Turner Rae, (London). The interests of the Association are especially represented in Parliament by the President, and the Rt. Hon. T. R. Fergus, M.P., Mr. J. Herbert Lewis, M.P. and the Rt. Hon. Sir Thos. Whitaker, M.P., all of whom are members of the Association's Council.

**THE ALL INDIA TEMPERANCE CONFERENCE.**—Growing out of the Association mentioned above and in closest relation with it is The All India Temperance Conference, formed in 1903, which meets every year, as a matter of convenience at the same time and place as the Indian National Congress, but having no official connection with it. The President is elected annually, the Secretaries are more or less permanent. The President for 1913 was the Hon. Dev. Prasad Sarvadikari, M.A., B.L., of Calcutta. The Secretaries are Sir Bhalchandra Krishna, L.M., and Mr. D. D. Gilder of Bombay. The membership of the Conference is the 280 Indian Temperance Societies affiliated with the Anglo-India Temperance Association as above, from each of which delegates are sent to the Annual Meeting of the Conference. Special Councils embracing Presidency Societies are established at Bombay, Allahabad, Calcutta and Madras, each of which has its own local President, Secretary and Committee. The medium of communication between the Societies composing the Conference is the *Abkari*, published quarterly from England by the A. I. T. A. Amongst the general aims of the Conference may be mentioned:—

The separation of the licensing from the revenue;

The doing away with the present system of license auctioneering;

The reduction of the present number of liquor shops and the prevention of the formation of new ones in important positions especially in the crowded areas;  
The later opening and the earlier closing of liquor shops, and the entire closing of them on public holidays;

The introduction of Temperance Teaching in the Government Elementary Schools and Colleges, which despite the desire of Government expressed in their Circular Letter No. 730-37 of 12th Sept. 1907 to "deal with the subject of intemperance in a few sensible lessons in the sanctioned Readers," has not yet been adequately treated and as in the corresponding schools in England.

The general spread of Total Abstinence principles depends more largely upon the individual Societies constituting the Conference than upon the official body. Amongst the methods are lantern addresses, dramatic representations and singing by itinerant preachers. Twelve paid Lecturers travel through various districts holding public meetings and addressing the masses wherever possible. Educational work is especially to the front in the Panjab district through the Amritsar Society.

## Agriculture in India.

As crops depend on the existence of plant food and moisture in the soil so the character of the agriculture of a country depends largely on its soil and climate. It is true that geographical situation, the character of the people and other considerations have their influence which is not inconsiderable, but the limitations imposed by the nature of the soil and above all by the climate tend to the production of a certain class of agriculture under a certain given set of conditions.

The climate of India, while varying to some extent in degree, in most respects is remarkably similar in character throughout the country. The main factors in common are the monsoon, the dry winter and early summer months, and the intense heat from March till October. These have the effect of dividing the year into two agricultural seasons, the *Kharif* or Monsoon and the *Rabi* or Winter Season each bearing its own distinctive crops. From early June till October abundant rains fall over the greater part of the continent while the winter months are generally dry although North-Western India benefits from showers in December and January. The distribution of the rainfall throughout the year, which is of considerable importance to agriculture, is none too favourable, but is not quite so bad as is often represented. The rainfall is greatest at what would otherwise be the hottest time of the year *viz.*, mid-summer and when it is most needed. It should be remembered that in a hot country intermittent showers are practically valueless as evaporation is very rapid. The distribution of rainfall such as is common in England, for example, would be of little use to Indian soils.

**Soil.**—For the purpose of soil classification, India may be conveniently divided into two main areas in (1) The Indo-Gangetic plains, (2) Central and Southern India. The physical features of these two divisions are essentially different. The Indo-Gangetic plains (including the Punjab, Sind, the United Provinces, Bengal, Bihar and Assam) form large level stretches of alluvium of great depth. The top soil varies in texture from sand to clay, the greater part being a light loam, porous in texture, easily worked, and naturally fertile. The great depth of the alluvium tends to keep down the soil temperature. Central and Southern India on the other hand consists of hills and valleys. The higher uplands are too hot and too near the rock to be suitable for agriculture which is mainly practised in the valleys where the soil is deeper and cooler and moisture more plentiful. The main difference between the soils of the two tracts is in texture and while the greater part of the land in Northern India is porous and easily cultivated, and moist near to the surface, large stretches in Southern and Central India consist of an intractable soil called the Deccan trap, sticky in the rains, hard and crumbly in the dry weather and holding its moisture at lower levels.

**Agricultural Capital and Equipment.**—India is a country of small holdings and the vast majority of the people cultivate patches varying in size from one to eight acres. Large holdings are practically unknown, and are mainly

confined to European planters. Farming is carried on with a minimum of capital, there being practically no outlay on fencing, buildings, or implements. The accumulation of capital is prohibited by the occurrence of famine and the high rate of interest, and extravagance of expenditure in marriage celebrations. The organization of co-operative credit which has been taken in hand by Government and which has already proved successful in many provinces will undoubtedly lead to an increase in Agricultural capital.

**Equipment.**—For power the ryat depends chiefly on cattle which, as a rule, are light and active but possess little hauling power. The necessary tilth for crops is brought about by frequency of ploughings, the result being that the soil is seldom tilled as it should be. This is not due in any way to want of knowledge on the part of the people but through want of proper equipment. The Indian Agriculturist, as a rule, possesses an intimate knowledge of the essentials of his own business, and fails through lack of ways and means.

**Implements** are made of wood although ploughs are usually tipped with iron points and there is a great similarity in their shape and general design. The levelling beam is used throughout the greater part of the country in preference to the harrow and roller; and throughout Northern India the plough and the levelling beam are the only implements possessed by the ordinary cultivator.

In the heavier soils of the Deccan trap a cultivating implement consisting of a single blade, resembling in shape a Dutch hoe, is much used. Seed drills and drill hoes are in use in parts of Bombay and Madras but throughout the greater part of the country the seed is either broad-casted or ploughed in. Hand implements consist of various sizes of hoes, the best known of which are *kodal* or spade with a blade set at an angle towards the labourer who does not use his feet in digging, and the *khurpi* or small hand hoe. Of harvesting machinery there is none, grain is separated either by treading out with oxen or beating out by hand, and winnowing by the agency of the wind.

**Cultivation.**—Cultivation at its best is distinctly good but in the greater part of the country it has plenty of room for improvement. As in any other country success in agriculture varies greatly with the character of the people, depending largely as it does on thrift and industry. In most places considering the large population cultivation is none too good. Agriculture suffers through lack of organization and equipment. Owing to the necessity of protection against thieves, in most parts the people live in villages, many of them at considerable distances from their land. Again, holdings, small though they are, have been sub-divided without any regard for convenience. Preparatory tillage generally consists of repeated ploughings, followed as seed time approaches by harrowings with the levelling beam. The *Rabi* crops generally receive a more thorough cultivation than the *Kharif*, a finer seed bed being necessary owing to the dryness of the growing season. Manure is

## AGRICULTURAL STATISTICS.

	1905-6.	1906-7.	1907-8.	1908-9.	1909-10.	1910-11.	1911-12.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
<b>Net Area by professional survey.</b>	556,599,298	583,730,245	619,456,133	623,135,283	624,358,714	618,581,099	618,605,988
Area under forest ..	67,976,325	81,748,198	83,425,363	82,489,268	81,189,511	80,613,076	80,851,369
Not available for cultivation ..	135,349,173	137,164,249	153,526,625	157,636,654	157,627,145	149,994,347	149,605,179
Cultivable waste other than fallow ..	104,646,615	106,696,589	113,288,334	113,066,521	114,665,202	115,096,758	114,700,370
Fallow land ..	41,601,032	39,935,421	54,208,922	50,153,056	45,385,412	46,948,606	54,592,354
Net area sown with crops ..	207,638,741	214,025,596	210,883,511	218,039,911	222,911,547	223,064,601	215,981,683
Area irrigated ..	35,345,538	36,653,779	39,913,573	42,486,754	41,581,436	40,895,474	40,679,142
<b>Area under Food-grains—</b>							
Rice ..	73,400,528	73,541,118	75,080,682	72,800,536	78,730,642	78,524,391	76,636,887
Wheat ..	22,402,307	23,137,416	18,424,191	21,198,764	22,769,918	24,397,699	25,025,236
Barley ..	7,326,755	7,700,109	7,629,550	8,002,683	8,104,753	7,840,222	8,432,503
Jawar ..	20,742,047	20,781,623	21,063,751	24,780,144	21,801,934	21,184,164	18,386,382
Bajra ..	11,530,710	13,033,738	15,133,229	16,007,989	16,303,400	15,340,225	13,092,938
Ragi ..	3,415,664	3,567,712	4,539,472	4,464,399	4,545,355	4,288,927	4,296,207
Maize ..	5,700,543	6,171,715	6,299,375	6,784,224	6,837,925	6,311,627	5,591,349
Gram ..	11,024,170	13,411,948	6,816,816	11,264,479	13,153,400	13,946,210	14,128,881
Other grains and pulse ..	23,022,722	29,771,837	29,385,726	31,534,019	31,896,982	23,069,948	29,507,101
<b>Total Food-grains</b>	183,655,446	195,117,216	186,369,792	196,837,237	203,664,289	204,103,413	195,097,434
<b>Area under other food-crops (including gardens, orchards, spices, &amp;c.).</b>	7,012,988	7,274,315	7,493,186	7,193,324	7,446,923	7,467,584	7,582,432
<b>Area under—</b>							
Sugar ..	2,414,860	2,623,873	2,876,965	2,408,212	2,442,032	2,540,541	2,565,770
Coffee ..	92,160	96,950	99,531	97,283	94,455	92,874	94,576
Tea ..	507,920	505,417	513,437	520,487	525,729	532,703	543,565



generally applied to *Kharif* crops. Seeding is either done broadcast or by drilling behind a wooden plough or drill. Thinning and spacing is not nearly so well done as it might be, and intercultivation is generally too superficial. Harvesting is done by sickle where the crops are cut whole, and there is little waste involved. On the whole the methods of the ryats if carried out thoroughly would be quite satisfactory, but it is doubtful if this could be done with the number of cattle at his disposal.

**Irrigation** is necessary over the greater part of the country owing to insufficient rainfall and the vagaries of the monsoon. Canal irrigation has been greatly extended over the Punjab, Sind, United Provinces and Madras through Government canals which, in addition to securing the crops over existing cultivated land have converted large desert tracts into fertile areas. The Punjab and parts of the United Provinces are naturally well suited to canal irrigation owing to the frequency of their rivers. The water is generally taken off at a point a little distance from where the rivers leave the hills and is conducted to the arid plains below. The main canal splits up into diverging branches, which again subdivide up into distributaries from which the village channels receive their supplies. Water rates are levied on the matured areas of crops, Government thus bearing a part of the loss in case of failure. Much of the land is supplied by what is termed flow irrigation, i.e., the land is directly commanded by the canal water, but a great deal has to be lifted from one to three feet the canal running in such cases below the level of the land. Rates for lift irrigation are, of course, lower than those for flow.

Irrigation canals are generally classed into (1) perennial and (2) inundation canals. Perennial canals, which give supplies in all seasons generally have their headworks near the hills, thus commanding a great range of country. Farther from the hills owing to the very gradual slope of the land and the lowness of the rivers in the cold weather, perennial irrigation is difficult and inundation canals are resorted to. These canals only give irrigation when the rivers are high. As a rule, in Northern India they begin to flow when the rivers rise owing to the melting of the snow on the hills in May and dry up in September.

**Irrigation from Wells.**—About one-quarter of the total irrigation of the country is got from lifting water from wells ranging in depth from a few feet to over fifty feet. Their numbers have greatly increased in recent years largely through Government advances for their construction. The recurring cost of this form of irrigation has, however, greatly increased owing to the high price of draught cattle and the increasing cost of their maintenance.

Tank irrigation is common in Central and Southern India. Large quantities of rain water are stored in lakes (or tanks) and distributed during the drier seasons of the year. The system of distribution is the same as that by canal.

**Manures.**—Feeding of animals for slaughter being practically unknown in India, the amount of farm yard manure generally available in other countries from this source

thus does not exist. This is partially if not entirely made up for by the large numbers required for tillage and the amount of cows and buffaloes kept for milk. Unfortunately fuel is very scarce and a greater part of the dung of animals has to be used for burning. The most of the trash from crops is used up for the same purpose and the net return of organic matter to the soil is thus insignificant. In some parts cakes of oil seed are used as manures for valuable crops like tea and sugarcane but in the greater of the country the only manure applied is the balance of farm yard manure available after fuel supplies have been satisfied. Farm yard manure is particularly effective and its value is thoroughly appreciated but the people have much to learn in the way of storage of bulky manures and the conservation of urine.

**Rice.**—A reference to the crop statistics shows that rice is the most extensively grown crop in India, although it preponderates in the wetter parts of the country, *etc.*, in Bengal, Bihar and Burma and Madras. The crop requires for its proper maturing a moist climate with well assured rainfall. The cultivated varieties are numerous, differing greatly in quality and in suitability for various conditions of soil and climate, and the people possess an intimate acquaintance with those grown in their own localities. The better qualities are sown in seed beds and transplanted in the monsoon. Broadcasted rice is grown generally in lowlying areas and is sown before the monsoon as it must make a good start before the floods arrive. Deep water rice grows quickly and to a great height and are generally able to keep pace with the rise in water level.

For transplanted rice the soil is generally prepared after the arrival of the monsoon and is worked in a puddle before the seedlings are transplanted. The land is laid out into small areas with raised partitions to regulate the distribution of the water supply. The seedlings are planted in small bunches containing from 4 to 6 plants each and are simply dibbled into the mud at distances of 6 to 12 inches apart. Where available, irrigation water is given at frequent intervals and the fields are kept more or less under water until the crop begins to show signs of ripening.

**Wheat.**—Wheat is grown widely throughout Northern India as a winter crop, the United Provinces and the Punjab supplying about two-thirds of the total area, and probably three quarters of the total output in India. The majority of the varieties grown belong to the Species *Triticum Vulgare*. Indian wheats are generally white, red and amber coloured and are mostly classed as soft from a commercial point of view. The grains are generally plump and well filled but the samples are spoiled through mixtures of various qualities. Indian wheat is generally adulterated to some extent with barley and largely with dirt from the threshing floor and although there is a good demand in England and the Continent for the surplus produce, prices compare unfavourably with those obtained for Canadian and Australian produce. The crop is generally grown after a summer fallow and, except in irrigated tracts, depends largely on the conservation of the soil moisture from the previous monsoon.

## AGRICULTURAL STATISTICS OF BRITISH INDIA.

	1905-6.		1906-7.		1907-8.		1908-9.		1909-10		1910-11.		1911-12.	
	Acres.		Acres.		Acres.		Acres.		Acres.		Acres.		Acres.	
<b>Area under Oilseeds—</b>														
Rapeseed .. .. .	2,292,523	2,514,884	1,401,220	1,981,826	2,116,281	2,512,032	2,512,032	3,763,222						
Sesamum (oil) .. ..	8,914,737	3,908,328	4,287,721	4,282,568	4,740,092	4,211,829	4,211,829	4,174,341						
Rape and Mustard ..	3,503,060	4,231,554	3,287,455	3,887,122	3,993,590	3,893,746	3,893,746	4,224,736						
Other Oilseeds .. ..	2,830,933	3,310,596	3,499,570	4,004,082	3,675,094	3,911,623	3,911,623	4,335,566						
Total Oilseeds .. ..	12,501,253	13,965,365	12,485,973	14,105,598	14,625,057	14,534,230	14,534,230	16,494,865						
<b>Area under—</b>														
Cotton .. .. .	13,099,359	13,771,268	13,900,269	12,935,974	13,172,188	14,447,680	14,447,680	14,568,189						
Jute .. .. .	3,140,822	3,523,558	3,942,675	2,835,453	2,756,820	2,828,669	2,828,669	3,090,827						
Other fibres .. ..	631,729	692,484	740,696	722,718	824,669	769,594	769,594	688,868						
Indigo .. .. .	401,138	448,594	405,905	286,354	293,706	282,757	282,757	274,925						
Opium .. .. .	654,078	614,879	538,042	416,318	371,208	383,335	383,335	220,164						
Tobacco .. .. .	1,018,506	1,009,210	974,458	953,712	1,013,352	1,067,682	1,067,682	998,943						
Fodder crops .. ..	3,933,735	4,547,723	4,903,324	4,627,878	4,748,899	4,881,742	4,881,742	4,977,924						
<b>Estimated yield* of—</b>														
Rice (Cleaned) .. ..	433,138,300	427,743,800	379,211,300	390,979,900	557,136,000	557,938,000	557,938,000	521,992,000						
Wheat .. .. .	8,570,140	8,491,700	6,125,100	7,639,000	9,633,000	10,040,500	10,040,500	9,813,500						
Coffee † .. .. .	31,171,668	17,777,032	33,042,427	27,648,357	34,983,569	258,317,942	258,317,942	263,823,436						
Tea † .. .. .	221,712,407	241,403,510	244,668,973	4,200,150	4,928,000	4,303,000	4,303,000	3,923,700						
Cotton .. .. .	4,165,451	4,934,000	3,782,401	6,310,890	7,206,600	7,932,000	7,932,000	8,231,700						
Jute .. .. .	8,140,900	9,206,400	9,817,800	12,277,000	12,700,000	12,333,200	12,333,200	12,711,000						
Linnseed .. .. .	353,200	423,200	163,200	987,500	1,218,400	563,600	563,600	641,200						
Rape and Mustard ..	961,600	1,053,100	688,000	987,500	1,218,400	563,600	563,600	641,200						
Sesamum (oil) .. ..	389,800	541,000	283,700	464,300	560,800	511,400	511,400	371,400						
Groundnut .. .. .	211,200	277,700	352,500	493,700	459,300	503,200	503,200	542,200						
Indigo .. .. .	48,200	65,700	52,300	38,800	39,300	46,000	46,000	45,700						
Cane-sugar .. .. .	1,725,500	2,203,300	2,046,900	1,872,900	2,127,100	2,217,800	2,217,800	2,390,400						

\* The acreage of crops given in this table is for British India only, but the estimated yield includes the crops in certain of the Native States.

† The statistics of the production of tea are for calendar years; those for coffee were for calendar years before 1908-9.

‡ Return of production discontinued.

Rains in January and February are generally beneficial but an excess of rainfall in these months usually produces rust with a diminution of the yield. On irrigated land 2 to 4 waterings are generally given. The crop is generally harvested in March and April and the threshing and winnowing go on up till the end of May. In good years the surplus crop is bought up at once by exporters and no time is lost in putting it on the European market as other supplies are at that time of year scarce. In years of famines the local price is generally sufficiently high to restrict exports.

**The Millets.**—These constitute one of the most important group of crops in the country, supplying food for the poorer classes and fodder for the cattle. The varieties vary greatly in quality, height and suitability to various climatic and soil conditions. Perhaps the two best known varieties are Jowar (Sorghum vulgare) tall growing with a large open head, and Bajra with a close rat-tail head and thin stem. Generally speaking the jowars require better land than the bajras and the distribution of the two crops follows the quality of the soil. Neither for jowar nor bajra is manure applied and cultivation is not so thorough as for wheat, the main objective being to produce a fine seed bed. As the crop is generally sown in the beginning of the monsoon it requires to be thoroughly weeded. It is often grown mixed with the summer pulses and other crops in which case thin seedlings are resorted to. The subsidiary crops are harvested as they ripen either before the millet is harvested or afterwards. The produce is consumed in the country.

**Pulses** are commonly grown throughout India and the grain forms one of the chief foods of the people. Most kinds do well but are subject to failure or shortage of yield owing to a variety of circumstances among which rain at the time of flowering appears to be one of the most important. They are therefore more suitable to grow as mixed crops especially with cereals, and are generally grown as such. Being deep rooted and practically independent of a Nitrogen supply in the soil they withstand drought and form a good alternation in a cereal rotation. The chief crops under this heading are gram, mash, mung and moth, gram forming the main winter pulse crop while the others are grown in the summer. The pulses grow best on land which has had a good deep cultivation. A fine seed bed is not necessary. For gram especially the soil should be loose and well aerated. Indian pulses are not largely exported although they are used to some extent in Europe as food for dairy cows.

**Cotton** is one of the chief exports from India and the crop is widely grown in the drier parts of the country. The lint from Indian cotton is generally speaking short and coarse in fibre and unsuited for English mills. Japan and the Continent are the chief buyers. The crop is grown during the summer months and requires a deep moist soil and light rainfall for its proper growth. Rain immediately after sowing or during the flowering period is injurious. In parts of Central and Southern India the seed is sown in lines and the crop receives careful attention but over

Northern India it is sown broadcast (often mixed with other crops) and from the date of sowing till the time of picking is practically left to itself. The average yield, which does not amount to more than 400 lbs. per acre of seed cotton, could doubtless be greatly increased by better cultivation.

**Sugarcane.**—Although India is not naturally suited for sugarcane growing, some 3½ millions of acres are annually sown. The crop is mostly grown in the submontane tracts of Northern India. The common varieties are thin and hard, yielding a low percentage of juice of fair quality. In India white sugar is not made by the grower who simply boils down the juice and does not remove the molasses. The product called gur or gul is generally sold and consumed as such, although in some parts a certain amount of sugar-making is carried on. The profits, however, are small owing to the cheapness of imported sugar and there appears to be some danger to the crop if the present taste for gur were to die out. The question has been taken up by Government and a cane breeding station has been recently opened near Coimbatore in Madras with the object of raising seedling canes and otherwise improving the supply of cane sets. A number of sugar factories of a modern type have been set up within recent years in Bihar and the United Provinces. The chief difficulty seems to be the obtaining of a sufficiently large supply of canes to offset the heavy capital charges of the undertakings.

**Oilseeds.**—The crops classified under this heading are chiefly sesamum, linseed and the cruciferous oilseeds (rape, mustard, etc.). Although oilseeds are subject to great fluctuation in price and the crops themselves are more or less precarious by nature—they cover an immense area.

**Linseed** requires a deep and moist soil and is thus grown chiefly in Bengal, Bihar, the United Provinces and the Central Provinces. The crop is grown for seed and not for fibre and the common varieties are of a much shorter habit of growth than those of Europe. The yield varies greatly from practically nothing up to 500 or 600 lbs. of seed per acre. The seed is mainly exported whole but a certain amount of oil pressing is done in the country.

**Sesamum** (Or Gingelly) is grown mostly in Peninsular India as an autumn or winter crop. The seed is mostly exported.

**The Cruciferous Oilseeds** form an important group of crops in Northern India where they grow freely and attain a fair state of development. They are one of the most useful crops in the rotation. They occupy the land for a few months only, and owing to their dense growth leave the soil clean and in good condition after their removal. A number of varieties are grown differing from each other in habit of growth, time of ripening, and size and quality of seed. The best known are rape, toria, and sarson. The crop is generally sown in September or early October and harvested from December to February. The crop is subject to the attack of aphids (green fly) at the time of flowering and sometimes suffers considerable damage from this pest. The seed

AREA, CULTIVATED and UNCULTIVATED, in 1911-12; in ACRES.

Administrations.	Area according to Survey.	DEDUCT.			NET AREA.	
		Feudatory and Tributary States.	Area for which no Returns exist.	Total.	According to Survey.	According to Village Papers.
Bengal ..	53,097,964	3,451,520	..	3,451,520	49,646,444	49,646,444
Bihar and Orissa ..	71,507,696	18,334,720	..	18,334,720	53,172,976	53,172,976
Assam ..	39,275,494	7,969,920	..	7,969,920	31,305,574	31,305,574
United Provinces (Agra).	57,372,937	4,345,232	..	4,345,232	53,027,705	52,799,610
United Provinces (Oudh).	15,306,720	....	..	....	15,306,720	15,476,220
Punjab ..	86,726,737	24,511,382	..	24,511,382	62,215,355	61,255,052
North-West Frontier Province.	8,578,462	140,800	..	140,800	8,437,662	8,574,452
Upper Burma ..	57,802,617	3,997,722	..	3,997,722	53,804,895	53,804,895
Lower Burma ..	54,994,247	....	..	....	54,994,247	54,994,247
Central Provinces ..	72,552,216	19,960,343	..	19,960,343	52,591,873	52,945,610
Berar ..	11,327,431	....	..	....	11,327,431	11,371,931
Ajmer-Merwara ..	1,770,921	....	..	....	1,770,921	1,770,921
Coorg ..	1,012,260	....	..	....	1,012,260	1,012,260
Madras ..	97,452,663	6,378,899	..	6,378,899	91,073,764	89,072,612
Bombay ..	85,618,793	36,989,440	..	36,989,440	48,629,353	48,629,353
Sind ..	34,129,376	3,872,000	..	3,872,000	30,257,376	30,257,376
Pargana Manpur* ..	31,382	....	..	....	31,382	31,382
<b>Total ..</b>	<b>748,557,916</b>	<b>129,951,978</b>	<b>..</b>	<b>129,951,978</b>	<b>618,605,938</b>	<b>616,120,924</b>

Administration.	CULTIVATED.		UNCULTIVATED.		Forests.
	Net Area actually Cropped.	Current Fallows.	Cultivable Waste other than Fallow.	Not available for Cultivation.	
Bengal ..	24,931,100	4,730,353	5,067,878	10,836,614	4,080,498
Bihar and Orissa ..	27,556,300	3,615,642	7,422,086	11,150,645	3,428,303
Assam ..	5,711,698	2,529,939	15,222,445	5,510,500	2,330,992
United Provinces (Agra).	26,390,618	2,593,248	7,440,891	7,656,765	8,718,088
United Provinces (Oudh).	9,200,093	663,965	2,758,396	2,240,591	618,184
Punjab ..	22,257,053	5,839,364	17,294,661	12,530,931	3,333,043
North-West Frontier Province.	2,284,540	563,764	2,723,177	2,628,633	374,338
Upper Burma ..	4,620,129	4,438,091	11,162,917	21,719,810	11,863,948
Lower Burma ..	8,711,787	743,787	14,816,218	23,613,216	7,101,239
Central Provinces ..	17,968,886	2,227,950	13,560,821	4,091,301	15,095,652
Berar ..	7,057,414	808,620	366,701	866,148	2,273,048
Ajmer-Merwara ..	220,175	574,871	15,056	870,087	90,732
Coorg ..	141,228	146,068	21,964	345,157	357,843
Madras ..	33,068,400	8,935,084	9,371,366	24,899,507	12,798,246
Bombay ..	22,906,127	10,636,216	1,542,911	5,958,594	7,585,505
Sind ..	2,940,938	5,933,995	5,905,619	14,685,822	791,002
Pargana Manpur* ..	7,188	367	7,263	858	15,707
<b>Total ..</b>	<b>215,981,683</b>	<b>54,982,324</b>	<b>114,700,370</b>	<b>149,605,179</b>	<b>80,851,369</b>

\* A British district in Central India.

is very subject to injury from rain and great care has to be taken in the drying. The produce is largely exported whole, but there is a considerable amount of local oil-pressing—the cake being in demand for feeding purposes.

**Jute.**—Two varieties of the plant are cultivated as a crop: *Capsularis* and *Olitarius*. Jute growing is confined almost entirely to Eastern Bengal, in the Ganges-Brahmaputra Delta. The crop requires a rich moist soil. Owing to river inundation this part of India receives a considerable alluvial deposit every year and the land is thus able to sustain this exhausting crop without manure. The crop is rather delicate when young, but once established requires no attention, and grows to a great height (10 to 11 feet). Before ripening the crop is cut and retted in water. After about three weeks submersion the fibre is removed by washing and beating. At the present high range of prices jute may be considered to be the best paying crop in India.

**Tobacco** is grown here and there all over the country chiefly however in Bengal, Bihar, Bombay, Madras and Burma. Of two varieties cultivated *Nicotiana Tabacum* is by far the most common. Maximum crops are obtained on deep and moist alluvium soils and a high standard of cultivation including liberal manuring is necessary. The crop is only suited to small holdings where labour is plentiful as the attention necessary for its proper cultivation is very great. The seed is germinated in seed beds and the young plants are transplanted when a few inches high, great care being taken to shield them from the sun. The crop is very carefully weeded and hoed. It is topped after attaining a height of, say, 2 ft., and all suckers are removed. The crop ripens from February onwards and is cut just before the leaves are become brittle. By varying the degree of fermentation of the leaves different qualities of tobacco are obtained. A black tobacco is required for *Hooka* smoking and this is the most common product but a certain amount of yellow leaf is grown for cigar making.

**Live-stock** consist mainly of cattle, buffaloes and goats, horses not being used for agricultural purposes. Sheep are of secondary importance.

For draught purposes cattle are in more general use than buffaloes especially in the drier parts of the country, but buffaloes are very largely used in the low lying rice tracts. For dairying buffaloes are perhaps more profitable than cows as they give richer milk and more of it; but they require more feeding. The poorer people depend largely on the milk of goats of which there are an enormous number throughout India. Cattle breeding is carried on mainly in the non-cultivated tracts in Central and Southern India, Southern Punjab and Rajputana, where distinct breeds with definite characters have been preserved. The best known draught breeds are Hansi, Nellore, Amritmahal, Gujrat, Malvi, and the finest milk cows are the Sahiwal (Punjab) Gir (Ka-

thiawar) and Sind. Owing however, to the encroachment of cultivation, on the grazing areas well-bred cattle are becoming scarce, and some of the breeds are threatened with extinction. Efforts to improve the quality of the cattle in the non-breeding districts by the use of selected bulls have hitherto been frustrated by the promiscuous breeding which goes on in the villages.

**Dairying.**—Though little noticed, dairying forms a very large indigenous industry throughout India. The best known products are native butter (ghee) and cheese (dahi). During recent years a considerable trade in tinned butter has sprung up in Gujrat (Bombay Presidency). While pure ghee and milk can be procured in the villages, in the town dairy products can scarcely be bought unadulterated.

**Agricultural Improvement.**—The chief improvements in the general agricultural prosperity of the country have been hitherto effected through Public Works. The irrigation canals have added enormously to the security and productiveness of the land commanded, while vast desert areas have been converted into flourishing agricultural districts. The Railways have undoubtedly increased values and have had a steady influence on the prices of agricultural produce through the opening up of new markets.

The more important problems awaiting solution have an economic basis. The improvement of agricultural credit, the organization of the village communities, the consolidation of scattered holdings are problems of vital importance to the advancement of Indian agriculture. If these questions can be satisfactorily settled there is room for a very great and general advance in agricultural methods. With adequate capital and proper organization India could with ease increase her agricultural produce by fifty per cent.

The improvement of agriculture has for some time received the attention of Government. Great advances have been made during the last 10 years through the recruitment of a staff of agricultural experts for investigation and research thus ensuring a continuous and concentrated effort towards improvement.

The main lines of investigations have been towards the improvement of the quality and yield of crops through selection and breeding of plants, the improvement in general methods of cultivation and the prevention and cure of insect and fungus disease. Although sufficient time has not elapsed to produce any marked effect on the agriculture of the country, it has been made clear that properly organized effort directed on sound lines with due regard to economic conditions will in most cases succeed. Field experiments have shown possibilities of greatly enhanced yields by better cultivation, and improved varieties, and the ryot has not shown himself averse from improvement where such is within his means.

## AREA, UNDER IRRIGATION IN 1911-12 : IN ACRES.

Administrations.	Total Area Cropped.	AREA IRRIGATED.			
		By Canals.		By Tanks.	By Wells.
		Government.	Private.		
Bengal .. ..	30,436,800	111,323	244,381	728,104	20,773
Bihar and Orissa .. ..	32,955,600	797,679	334,455	628,894	625,858
Assam .. ..	6,167,760	978	119,093	....	....
United Provinces (Agra) ..	32,760,757	1,971,333	20,521	48,555	2,974,843
United Provinces (Oudh) ..	12,030,224	....	....	....	899,940
Punjab .. ..	26,358,442	6,964,439	420,002	7,435	3,420,444
North-West Frontier Province.	2,088,888	221,087	439,344	....	88,013
Upper Burma .. ..	5,017,166	419,792	204,484	135,786	8,104
Lower Burma .. ..	8,725,818	396	21,790	3,505	2,218
Central Provinces .. ..	20,294,576	12,813	1,879	427,768	58,796
Berar .. ..	7,069,777	....	....	238	31,882
Ajmer-Merwara .. ..	253,496	....	....	25,134	91,190
Coorg .. ..	142,135	2,610	....	1,840	....
Madras .. ..	37,380,133	3,534,827	179,604	3,298,685	1,442,280
Bombay .. ..	23,499,345	146,705	15,936	58,256	696,365
Sind .. ..	3,263,325	2,636,845	66,939	....	46,685
Pargana Manpur .. ..	7,509	....	....	....	133
<b>Total</b> .. ..	<b>249,001,751</b>	<b>16,820,827</b>	<b>2,068,428</b>	<b>5,364,200</b>	<b>10,408,424</b>

Administrations.	AREA IRRIGATED.		CROPS IRRIGATED.*			
	Other Sources.	Total Area Irrigated.	Wheat.	Other Cereals and Pulses.	Miscellaneous Food Crops.	Other Crops.
Bengal .. ..	565,262	1,669,843	22,152	1,552,393	451,705	180,106
Bihar and Orissa .. ..	1,458,083	3,844,969	273,861	2,545,253	910,200	125,035
Assam .. ..	196,613	316,684	....	301,922	14,097	656
United Provinces (Agra) ..	1,308,378	6,323,630	1,802,953	3,196,839	151,038	1,749,000
United Provinces (Oudh) ..	712,544	1,612,484	623,182	705,382	38,004	289,836
Punjab .. ..	142,282	10,954,602	4,551,328	2,492,870	571,319	3,701,094
North-West Frontier Province.	97,273	846,617	280,146	385,401	55,539	130,250
Upper Burma .. ..	80,848	849,014	73	836,750	42,221	80
Lower Burma .. ..	78,729	106,636	....	103,818	3,064	....
Central Provinces .. ..	23,185	524,441	14,630	457,741	49,598	2,472
Berar .. ..	521	32,641	9,403	698	21,455	1,085
Ajmer-Merwara .. ..	51	116,375	12,245	84,643	11,307	22,088
Coorg .. ..	....	4,450	....	4,450	....	....
Madras .. ..	1,131,482	9,586,878	5,467	9,696,159	1,000,821	476,749
Bombay .. ..	87,020	1,005,182	195,535	531,304	165,676	217,985
Sind .. ..	134,092	2,884,561	349,097	2,194,993	49,307	600,262
Pargana Manpur .. ..	....	133	81	9	40	3
<b>Total</b> .. ..	<b>6,017,263</b>	<b>40,679,142</b>	<b>8,140,153</b>	<b>25,090,634</b>	<b>3,634,481</b>	<b>7,505,710</b>

\* Includes the area irrigated at both harvests.

## CROPS UNDER CULTIVATION IN 1911-12; IN ACRES.

Administrations.	Rice.	Wheat.	Barley.	Jawar or Cholum (Great Millet).	Bajra or Cumba (Spiked Millet).	Ragi or Marua (Millet).
Bengal .. .. .	20,960,900	143,000	94,900	2,500	5,700	14,300
Bihar and Orissa .. .. .	17,365,000	1,285,200	1,340,300	94,700	67,000	1,008,900
Assam .. .. .	4,616,197	162	507	..	1	1,931
United Provinces (Agra) .. .. .	3,430,247	5,640,530	3,977,147	1,366,332	2,244,506	153,198
United Provinces (Oudh) .. .. .	1,844,495	1,095,178	1,237,537	266,438	635,878	39,158
Punjab .. .. .	513,731	9,725,494	1,339,097	554,234	1,155,046	16,805
N. West Frontier Province .. .. .	47,181	1,198,993	296,183	53,356	75,638	..
Upper Burma .. .. .	1,957,713	27,482	..	484,905	318,433	..
Lower Burma .. .. .	7,936,548	..	..	10	703	..
Central Provinces .. .. .	4,780,434	3,290,692	23,457	1,667,409	41,888	23,700
Berar .. .. .	41,487	319,861	64	2,246,636	74,879	..
Ajmer-Merwara .. .. .	139	26,630	62,094	28,199	10,849	81
Coorg .. .. .	82,527	..	..	..	..	6,379
Madras .. .. .	10,289,461	18,314	3,247	5,166,309	3,383,565	2,448,420
Bombay .. .. .	1,682,035	983,684	38,303	6,063,566	4,663,795	581,891
Sind .. .. .	1,088,655	368,442	18,767	389,399	414,935	745
Pargana Manipur .. .. .	137	1,574	..	2,262	32	..
<b>Total</b> .. .. .	<b>76,636,887</b>	<b>25,025,236</b>	<b>8,432,503</b>	<b>18,386,332</b>	<b>13,092,938</b>	<b>4,206,207</b>

Administrations.	Maize.	Gram (pulse).	Other Food Grains and Pulses.	Total Food Grains and Pulses.	Lin- seed.	Til, Jinjili or Ses- amum.
Bengal .. .. .	94,700	176,700	1,416,700	22,910,000	206,800	282,800
Bihar and Orissa .. .. .	1,661,400	992,100	4,537,300	28,351,900	567,900	205,800
Assam .. .. .	19,450	965	87,365	4,726,518	13,628	5,581
United Provinces (Agra) .. .. .	998,417	5,175,443	4,406,615	27,302,525	612,159	349,192
United Provinces (Oudh) .. .. .	795,775	1,697,097	2,447,529	10,950,085	234,127	25,817
Punjab .. .. .	955,348	4,099,894	1,018,936	19,378,585	46,099	94,036
N. West Frontier Province .. .. .	409,842	174,119	99,299	2,354,611	11	5,467
Upper Burma .. .. .	161,145	38,905	466,005	3,454,588	..	1,010,649
Lower Burma .. .. .	21,232	1,377	27,234	7,987,104	..	61,489
Central Provinces .. .. .	142,268	993,113	4,348,695	15,311,835	1,731,076	808,935
Berar .. .. .	2,103	117,221	616,950	3,419,201	137,718	77,741
Ajmer-Merwara .. .. .	43,697	26,176	14,013	212,778	561	1,828
Coorg .. .. .	..	1,540	998	91,444	..	276
Madras .. .. .	118,011	134,900	7,024,105	28,586,332	25,905	887,349
Bombay .. .. .	165,268	422,274	2,763,247	17,364,063	196,903	303,344
Sind .. .. .	1,833	76,439	232,038	2,591,250	20	53,113
Pargana Manipur .. .. .	860	678	72	5,615	321	324
<b>Total</b> .. .. .	<b>5,591,349</b>	<b>14,128,881</b>	<b>29,507,101</b>	<b>195,097,414</b>	<b>3,763,222</b>	<b>4,174,341</b>

**CROPS UNDER CULTIVATION IN 1911-12 ; IN ACRES.**

Administrations.	Rape and Mustard.	Other Oil Seeds.	Total Oil Seeds.	Condiments and Specics.	Sugar Cane.	Sugar Other.
Bengal .. .. .	1,317,600	80,600	1,887,800	157,400	222,600	38,000
Bihar and Orissa .. ..	780,000	496,600	2,050,300	82,400	263,100	200
Assam .. .. .	281,823	163	301,189	2,977	36,561	..
United Provinces (Agra) ..	101,947	126,544	1,189,842	105,728	1,120,040	..
United Provinces (Oudh) ..	76,970	454	337,368	24,024	220,597	..
Punjab .. .. .	1,456,202	1,788	1,598,725	32,351	298,296	..
N. West Frontier Province ..	99,447	40	104,965	5,347	31,683	..
Upper Burma .. .. .	206	*139,428	1,150,373	53,823	2,542	25,628
Lower Burma .. .. .	3,341	*3,133	67,963	21,500	11,360	1,404
Central Provinces .. .. .	51,622	..	2,980,548	58,268	22,951	..
Berar .. .. .	486	398,915	295,812	25,228	1,252	..
Ajmer-Merwara .. .. .	1,138	..	3,527	1,560	689	..
Coorg .. .. .	..	45	321	2,444	..	..
Madras .. .. .	..	2,014,128	2,927,382	720,064	108,032	90,387
Bombay .. .. .	1,550	855,563	1,357,360	204,044	66,807	..
Sind .. .. .	52,314	134,686	240,133	4,779	3,619	..
Pargana Manipur .. .. .	..	612	1,257	..	22	..
<b>Total</b> .. .. .	<b>4,224,736</b>	<b>4,332,566</b>	<b>16,494,865</b>	<b>1,502,537</b>	<b>2,410,151</b>	<b>155,619</b>

Administration.	Cotton.	Jute.	Other Fibres.	Total Fibres.	Indigo.	Other Dyes.
Bengal .. .. .	34,100	2,737,700	39,300	2,811,100	1,000	..
Bihar and Orissa .. .. .	89,100	258,200	20,200	367,500	110,100	7,100
Assam .. .. .	37,620	94,927	312	132,859	..	..
United Provinces (Agra) ..	841,524	..	76,716	918,240	23,881	3,042
United Provinces (Oudh) ..	59,657	..	18,198	77,855	5,521	..
Punjab .. .. .	1,462,500	..	23,442	1,485,942	38,672	4,481
N. W. Frontier Province ..	56,373	..	703	57,076	9	..
Upper Burma .. .. .	171,979	..	300	172,279	99	55
Lower Burma .. .. .	20,190	..	342	20,532	3	..
Central Provinces .. .. .	1,391,955	..	65,187	1,457,142	15	31
Berar .. .. .	3,256,248	..	43,900	3,300,148	13	712
AjmerMerwara .. .. .	27,560	..	80	27,640	13	..
Coorg .. .. .	6	..	..	6	..	..
Madras .. .. .	2,675,838	..	279,725	2,955,563	90,324	4,434
Bombay .. .. .	4,107,362	..	119,774	4,227,136	34	293
Sind .. .. .	335,656	..	656	336,312	5,241	519
Pargana Manipur .. .. .	521	..	33	554	..	..
<b>Total</b> .. .. .	<b>14,568,189</b>	<b>3,090,827</b>	<b>688,868</b>	<b>18,347,884</b>	<b>274,925</b>	<b>20,664</b>



## CROPS UNDER CULTIVATION IN 1911-12: IN ACRES.

Administration.	Opium.	Tea.	Coffee.	Tobacco.	Other Drugs and Nar- cotics.	Fodder Crops.
Bengal .. .. .	..	146,400	..	306,300	2,400	98,100
Bihar and Orissa .. .. .	2,600	2,200	..	116,300	600	30,700
Assam .. .. .	..	354,276	1	8,384	..	5,971
United Provinces (Agra) .. .. .	103,882	7,895	..	75,778	..	992,950
United Provinces (Oudh) .. .. .	111,217	..	..	17,057	..	117,416
Punjab .. .. .	2,262	9,937	..	76,430	1,029	2,896,436
N. W. Frontier Province .. .. .	..	..	..	12,447	..	74,743
Upper Burma .. .. .	200	1,736	60	29,670	10	48,546
Lower Burma .. .. .	..	..	3	59,228	..	2,810
Central Provinces .. .. .	..	..	..	17,958	102	354,742
Berar .. .. .	..	..	..	8,489	..	156
Ajmer-Merwara .. .. .	..	..	..	7	13	2,049
Coorg .. .. .	..	..	43,313	38	22	..
Madras .. .. .	..	21,107	51,127	192,205	48,273	273,018
Bombay .. .. .	..	14	72	68,286	570	71,112
Sind .. .. .	..	..	..	9,766	189	9,166
Pargana Manpur .. .. .	3	..	..	..	..	..
Total .. .. .	220,164	543,565	94,576	998,943	53,248	4,977,924

Administration.	Orchards and Garden Produce.	Miscellaneous Crops.		Total Area Cropped.	Deduct Area Cropped more than once.	Net Area Cropped.
		Food.	Non- Food.			
Bengal .. .. .	944,200	472,700	438,800	30,436,800	5,505,700	24,931,100
Bihar and Orissa .. .. .	655,200	510,300	405,100	32,955,600	5,399,300	27,556,300
Assam .. .. .	371,779	37,147	62,098	6,167,760	456,062	5,711,698
United Provinces (Agra) .. .. .	267,105	166,469	51,119	32,760,757	6,370,139	26,390,618
United Provinces (Oudh) .. .. .	91,213	61,453	3,818	12,030,224	2,830,131	9,200,093
Punjab .. .. .	163,856	308,320	13,120	26,308,442	4,051,389	22,257,053
N. W. Frontier Province .. .. .	5,933	39,181	3,793	2,638,888	404,348	2,234,540
Upper Burma .. .. .	31,350	38,764	4,443	5,017,160	397,037	4,620,129
Lower Burma .. .. .	402,928	35,771	115,212	8,725,818	6,031	8,719,787
Central Provinces .. .. .	86,349	4,015	620	20,294,575	2,325,690	17,968,886
Berar .. .. .	13,047	5,508	211	7,069,777	12,363	7,057,414
Ajmer-Merwara .. .. .	526	3,954	739	253,495	33,321	220,175
Coorg .. .. .	4,547	..	..	142,135	907	141,228
Madras .. .. .	1,172,953	..	138,332	37,380,133	4,311,724	33,068,409
Bombay .. .. .	137,464	18	2,072	23,499,345	593,218	22,906,127
Sind .. .. .	42,654	84	19,616	3,263,325	322,327	2,940,998
Pargana Manpur .. .. .	7	..	51	7,509	321	7,188
Total .. .. .	4,396,211	1,063,684	1,259,144	249,001,751	13,020,068	215,981,683

## Meteorology of India.

The meteorology of India like that of other countries is largely a result of its geographical position. The great land area of Asia to the northward and the enormous sea expanse of the Indian Ocean to the southward are the determining factors in settling its principal meteorological features. When the Northern Hemisphere is turned away from the sun, in the northern winter, Central Asia becomes an area of intense cold. The meteorological conditions of the temperate zone are pushed southward and we have over the northern provinces of India the westerly winds and eastward moving cyclonic storms of temperate regions, while, when the Northern Hemisphere is turned towards the sun, Southern Asia becomes a super-heated region drawing towards it an immense current of air which carries with it the enormous volume of water vapour which it has picked up in the course of its long passage over the wide expanse of the Indian Ocean, so that at one season of the year parts of India are deluged with rain and at another persistent dry weather prevails.

**Monsoons.**—The all-important fact in the meteorology of India is the alternation of the seasons known as the summer and winter monsoons. During the winter monsoon the winds are of continental origin and hence, dry, fine, weather, clear skies, low humidity and little air movement are the characteristic features of this season. The summer rains cease in the provinces of the North-West Frontier Province and the Punjab about the middle of September after which cool westerly and northerly winds set in over that area and the weather becomes fresh and pleasant. These fine weather conditions extend slowly eastward and southward so that by the middle of October, they embrace all parts of the country except the southern half of the Peninsula, and by the end of the year have extended to the whole of the Indian land and sea area, the rains withdrawing to the Equatorial Belt. Thus the characteristics of the cold weather from October to February over India are:—Westerly winds of the temperate zone over the extreme north of India; to the south of these the north-east winds of the winter monsoon or perhaps more properly the north-east Trades and a gradually extending area of fine weather which, as the season progresses, finally embraces the whole Indian land and sea area. Two exceptions to these fine weather conditions exist during this period, viz., the Madras coast and the north-west of India. In the former region the north-east winds which set in over the Bay of Bengal in October coalesce with the damp winds of the retreating summer monsoon, which current curves round over the Bay of Bengal, and, blowing directly on to the Madras coast gives to that region the wettest and most disturbed weather of the whole year, for while the total rainfall for the four months June to September, i.e., the summer monsoon, at the Madras Observatory amounts to 15.36 inches the total rainfall for the three months October to December amounts to 20.48 inches. The other region in which the weather is unsettled, during this period of generally settled conditions, is North-west India. This region during January, February and part of March is traversed by

a succession of shallow storms from the westward. The number and character of these storms vary very largely from year to year and in some years no storms at all are recorded. In normal years, however, in Northern India periods of fine weather alternate with periods of disturbed weather (occurring during the passage of these storms) and light to moderate and even heavy rain occurs. In the case of Peshawar the total rainfall for the four months, December to March, amounts to 5.26 inches while the total fall for the four months, June to September, is 4.78 inches, showing that the rainfall of the winter is, absolutely, greater in this region than that of the summer monsoon. These two periods of subsidiary "rains" are of the greatest economic importance. The fall in Madras is, as shown above, of considerable actual amount, while that of North-west India though small in absolute amount is of the greatest consequence as on it largely depends the grain and wheat crops of Northern India.

**Spring Months.**—March to May and part of June form a period of rapid continuous increase of temperature and decrease of barometric pressure throughout India. During this period there occurs a steady transference northward of the area of greatest heat. In March the maximum temperatures, slightly exceeding 100°, occur in the Deccan; in April the area of maximum temperature, between 100° and 105°, lies over the south of the Central Provinces and Gujarat; in May maximum temperatures, varying between 105° and 110°, prevail over the greater part of the interior of the country while in June the highest mean maximum temperatures exceeding 110° occur in the Indus Valley near Jacobabad. Temperatures exceeding 120° have been recorded over a wide area including Sind, Rajputana; the West and South Punjab and the west of the United Provinces, but the highest temperature hitherto recorded is 129° registered at Jacobabad on June 12th, 1897. During this period of rising temperature and diminishing barometric pressure, great alterations take place in the air movements over India, including the disappearance of the north-east winds of the winter monsoon, and the air circulation over India and its adjacent seas, becomes a local circulation, characterised by strong hot winds down the river valleys of Northern India and increasing land and sea winds in the coast regions. These land and sea winds, as they become stronger and more extensive, initiate large contrasts of temperature and humidity which result in the production of violent local storms. These take the forms of dust storms in the dry plains of Northern India and of thunder and hailstorms in regions where there is interaction between damp sea winds and dry winds from the interior. These storms are frequently accompanied with winds of excessive force, heavy hail and torrential rain and are hence very destructive.

By the time the area of greatest heat has been established over north-west India, in the last week of May or first of June, India has become the seat of low barometric pressures relatively to the adjacent seas and the whole character of the weather changes. During

the hot weather period, discussed above, the winds and weather are mainly determined by local conditions. Between the Equator and Lat.  $30^{\circ}$  or  $35^{\circ}$  south the wind circulation is that of the south-east trades, that is to say from about Lat.  $30^{\circ}$ - $35^{\circ}$  south a wind from south-east blows over the surface of the sea up to about the equator. Here the air rises into the upper strata to flow back again at a considerable elevation to the Southern Tropic or beyond. To the north of this circulation, i.e., between the Equator and Lat.  $20^{\circ}$  to  $25^{\circ}$  North, there exists a light unsteady circulation the remains of the north-east trades, that is to say about Lat.  $20^{\circ}$  North there is a north-east wind which blows southward till it reaches the thermal equator where side by side with the south-east Trades mentioned above, the air rises into the upper strata of the atmosphere. Still further to the northward and in the immediate neighbourhood of land there are the circulations due to the land and sea breezes which are attributable to the difference in the heating effect of the sun's rays over land and sea. It is now necessary to trace the changes which occur and lead up to the establishment of the south-west monsoon period. The sun at this time is progressing slowly northward towards the northern Tropic. Hence the thermal equator is also progressing northward and with it the area of ascent of the south-east trades circulation. Thus the south-east trade winds cross the equator and advance further and further northward, as the thermal equator and area of ascent follows the sun in its northern progress. At the same time the temperature over India increases rapidly and barometric pressure diminishes, owing to the air rising and being transferred to neighbouring cooler regions—more especially the sea areas. Thus we have the southern Trades circulation extending northward and the local land and sea circulation extending southward until about the beginning of June the light unsteady interfering circulation over the Arabian Sea finally breaks up, the immense circulation of the south-east Trades, with its cool, moisture laden, winds rushes forward, becomes linked on to the local circulation proceeding between the Indian land area and the adjacent seas and India is invaded by oceanic conditions—the south-west monsoon proper. This is the most important season of the year as upon it depends the prosperity of at least five-sixths of the people of India.

When this current is fully established a continuous air movement extends over the Indian Ocean, the Indian seas and the Indian land area from Lat.  $30^{\circ}$  S. to Lat.  $30^{\circ}$  N. the southern half being the south-east trades and the northern half the south-west monsoon. The most important fact about it is that it is a continuous horizontal air movement passing over an extensive oceanic area where steady evaporation is constantly in progress so that where the current enters the Indian seas and flows over the Indian land it is highly charged with aqueous vapours.

**The Current.**—Enters the Indian seas quite at the commencement of June and in the course of the succeeding two weeks spreads over the Arabian Sea and Bay of Bengal up to their

extreme northern limits. It advances over India from these two seas. The Arabian sea current blows on to the west coast and sweeping over the Western Ghats prevails more or less exclusively over the Peninsula, Central India, Rajputana and north Bombay. The Bay of Bengal current blows directly up the Bay. One portion is directed towards Burma, East Bengal and Assam while another portion curves to south at the head of the Bay and over Bengal, and then meeting with the barrier of the Himalayas curves still further and blows as a south-easterly and easterly wind right up the Gangetic plain. The south-west monsoon continues for three and a half to four months, viz., from the beginning of June to the middle or end of September. During its prevalence more or less general though far from continuous rain prevails throughout India the principal features of the rainfall distribution being as follows. The greater portion of the Arabian Sea current, the total volume of which is probably three times as great as that of the Bengal current, blows directly on to the west coast districts. Here it meets an almost continuous hill range, is forced into ascent and gives heavy rain alike to the coast districts and to the hilly range, the total averaging about 100 inches most of which falls in four months. The current after parting with most of its moisture advances across the Peninsula giving occasional uncertain rain to the Deccan and passes out into the Bay where it coalesces with the local current. The northern portion of the current blowing across the Gujarat, Kathiawar and Sind coasts gives a certain amount of rain to the coast districts and frequent showers to the Aravalli Hill range but very little to Western Rajputana and passing onward gives moderate to heavy rain in the Eastern Punjab, Eastern Rajputana and the North-west Himalayas. In this region the current meets with and mixes with the monsoon current from the Bay.

The monsoon current over the southern half of the Bay of Bengal blows from south-west and is thus directed towards the Tenasserim hills and up the valley of the Irrawaddy to which it gives very heavy to heavy rain. That portion of this current which advances sufficiently far northward to blow over Bengal and Assam gives very heavy rain to the low-lying districts of East Bengal and immediately thereafter coming under the influence of the Assam Hills is forced upwards and gives excessive rain (perhaps the heaviest in the world) to the southern face of these hills. The remaining portion of the Bay current advances from the southward over Bengal, is then deflected westward by the barrier of the Himalayas and gives general rain over the Gangetic plain and almost daily rain over the lower ranges of the Himalayas from Sikhim to Kashmir.

To the south of this easterly wind of the Bay current and to the north of the westerly wind of the Arabian Sea current there exists a debatable area running roughly from Hissar in the Punjab through Agra, Allahabad and part of Chota Nagpur to Orissa, where neither current of the monsoon prevails. In this area the rainfall is uncertain and would probably

be light, but that the storms from the Bay of Bengal exhibit a marked tendency to advance along this track and to give it heavy if occasional rain.

**The Total Rainfall** of the monsoon period (June to September) is 100 inches over part of the west coast, the amount diminishes eastward, is below 20 inches over a large part of the centre and east of the Peninsula and is only 5 inches in South Madras; it is over 100 inches on the Tenasserim and South Burma coast and decreases to 20 inches in Upper Burma; it is over 100 in the north Assam Valley and diminishes steadily westward and is only 5 inches in the Indus Valley.

The month to month distribution for the whole of India is:—

May ..	2.60 inches
June ..	7.19 "
July ..	11.25 "
August ..	9.52 "
September ..	6.78 "
October ..	3.15 "

Cyclonic storms and cyclones are an almost invariable feature of the monsoon period. In the Arabian Sea they ordinarily form at the commencement and end of the season, viz. May and November, but in the Bay they form a constantly recurring feature of the monsoon season. The following gives the total number of storms recorded during the period 1877 to 1901 and shows the monthly distribution:—

	Jan.	Feb.	Mar.	Apl.	May	June
Bay of Bengal ..	1	4	13	28		
	July	Aug.	Sep.	Oct.	Nov.	Dec.
Bay of Bengal * 41	36	45	34	22	8	
	Jan.	Feb.	Mar.	Apl.	May	June
Arabian Sea ..	2	15				

	July	Aug.	Sep.	Oct.	Nov.	Dec.
Arabian Sea	2	..	1	1	5	..

The preceding paragraphs give an account of the normal procession of the seasons throughout India during the year, but it must be remembered, that every year produces variations from the normal, and that in some years these variations are very large. This is more particularly the case with the discontinuous element rainfall. The most important variations in this element which may occur are:—

- (1) Delay in the commencement of the rains over a large part of the country, this being most frequent in North Bombay and North-west India.
- (2) A prolonged break in July or August or both.
- (3) Early termination of the rains, which may occur in any part of the country.
- (4) The determination throughout the monsoon period of more rain than usual to one part and less than usual to another part of the country. Examples of this occur every year.

About the middle of September fine and fresh weather begins to appear in the extreme north-west of India. This area of fine weather and dry winds extends eastward and southward the area of rainy weather at the same time contracting till by the end of October the rainy area has retreated to Madras and the south of the Peninsula and by the end of December has disappeared from the Indian region, fine clear weather prevailing throughout. This procession with the numerous variations and modifications which are inseparable from meteorological conditions repeats itself year after year.

(For Monsoon conditions in 1913, q.v.)

## The Textile Industry.

India has been the home of the cotton trade from the earliest times. Its cotton, known as white wool, was well known to the ancients, and its cloth was familiar to the West in the days of the overland route. The name Calico comes from the fine woven goods of Calicut, and the products of the Dacca handlooms are still remarkable as the finest muslins human skill can produce.

### Indian Cotton.

The exports of Indian cotton began to assume importance with the opening of the sea route. They received an immense stimulus during the American Civil War, when the close blockade of the Confederate ports produced a cotton famine in Lancashire, and threw the English spinners back on India for their supply of raw material. When the war broke out the shipments of Indian cotton were 528,000 bales, but during the last years of the war they averaged 973,000 bales. Most of this cotton was sold at an enormously inflated price, and induced a flow of wealth into Bombay, the great centre of the trade, for which there was no outlet. The consequence was an unprecedented outburst of speculation known as the "Share Mania," and when the surrender of Lee re-opened the Southern Ports widespread ruin followed. It is estimated that the surplus wealth brought into the country by the American Civil War aggregated £92 millions. Since then the cultivation of Indian cotton, although interrupted by famine, has steadily increased. For the last season for which returns are available, 1912-13, the total area in all the territories reported on was computed at 21,911,000 acres which marked a net increase of 296,000 acres or 1·4 per cent. on the 21,615,000 acres (revised figure) of the previous year. The total estimated outturn 4,397,000 bales of 400 lbs. as against 3,288,000 bales for previous year, representing an increase of 1,109,000 bales or nearly 34 per cent. To this figure may be added some 1,000 bales estimated as the production in Native States in Behar and Orissa which make no return.

Bombay, the Central Provinces and Hyderabad are the chief producing centres. The following table gives the rough distribution of the outturn. The figures are the estimated figures for the past season, and are not exact, but they indicate the distribution of the crop:—

Burma .. .. .	204,000
Behar and Orissa .. ..	86,000
Assam .. .. .	35,000
Hyderabad .. .. .	2,919,000
Bengal .. .. .	50,000
United Provinces .. ..	1,032,000
Ajmer-Merwara .. ..	37,000
Punjab .. .. .	1,362,000
North-West Frontier .. ..	49,000
Sind .. .. .	270,000
Bombay and Baroda .. ..	5,330,000
Central Provinces .. ..	4,466,000

Central India .. .. .	1,352,000
Madras .. .. .	862,000
Rajputana .. .. .	300,000
Mysore .. .. .	110,000

Of an average outturn of four million bales it may be said that 1,733,000 bales are exported, 1,781,000 consumed by the Indian mills, and 450,000 consumed in India outside the mills. The distribution of the export trade is indicated in the appended table.

Exports of cotton to principal countries in thousands of cwts. (3½ cwts. equal one bale.)

	1910-11	1911-12	1912-13.
	Cwts.	Cwts.	Cwts.
Japan .. .. .	2,852	3,515	3,549
Germany .. .. .	1,391	891	950
Belgium .. .. .	1,095	774	864
Italy .. .. .	1,100	680	576
Austria-Hungary .. ..	682	472	396
France .. .. .	388	292	325
United Kingdom .. ..	568	418	305
China .. .. .	150	90	193
Spain .. .. .	317	128	86

From this it will be seen that the United Kingdom is a very small purchaser of Indian cotton. The higher counts of yarn now chiefly spun in Lancashire cannot be produced from Indian cotton, and the United Kingdom takes her supplies from the United States and Egypt. Japan is the principal consumer. Formerly Japan bought Indian yarn largely, but her own textile industry has expanded so rapidly that she is now not only independent of the Indian yarn supply, but is a strong and successful competitor for the Chinese trade, and even exports small quantities of hosiery to India, where it has secured an entry owing to its cheapness. After Japan the principal buyer in the Continent, where the short staple Indian cotton finds a ready sale owing to its cheapness.

Bombay is the great Centre of the cotton trade. The principal varieties are: Dhollera, Broach, Oomras (from the Berars), Dharwar and Coomptas. Broach is the best cotton grown in Western India. Hinganghat cotton, from the central Provinces, has a good reputation. Bengals is the name given to the cotton of the Ganges valley, and generally to the cottons of Northern India. The Madras cottons are known as Westerns, Coconadas, Colmbatores and Tannevelly. The best of these is Tannevelly. Cambodia cotton has been grown with success in Southern India, but it shows a tendency to revert. The high prices of cotton realised of recent years have given a great impetus to cultivation. Government have also been active in improving the class of cotton produced, by seed selection, hybridization and the importation of exotic cottons. Although these measures have met with a considerable measure of success, they have not proceeded far enough to lighten the whole outturn, which still consists for the most

part of a short-staple early maturing variety, suitable to soils where the rainy season is brief.

Reference has been made to the popularity of the Indian handloom cloths in the earliest days of which we have record. This trade grew so large that it excited alarm in England, and it was killed by a series of enactments, commencing in 1701, prohibiting the use or sale of Indian calicoes in England. The invention of the spinning jenny and the power

loom and their development in England converted India from an exporting into an importing country, and made her dependent on the United Kingdom for the bulk of her piece-goods. The first attempt to establish a cotton mill in India was in 1838, but the foundations of the industry were really laid by the opening of the first mill in Bombay in 1856. Thereafter, with occasional set backs from famine, plague and other causes, in progress was rapid.

The following statement shows the quantity (in pounds) of yarn of all counts spun in all India in the twelve months, April to March, of each of the past three years:—

	1910-11.	1911-12.	1912-13.
Bombay .. .. .	424,902,640	411,521,380	485,566,927
Madras .. .. .	41,070,719	42,838,086	44,974,138
Bengal .. .. .	38,278,828	32,625,497	37,355,113
N. P. .. .. .	36,205,427	30,487,426	43,765,289
Punjab .. .. .	8,221,423	6,630,835	5,321,927
C. P. and Bihar .. .. .	28,314,423	27,738,443	33,581,772
Native States .. .. .	32,930,681	31,188,532	37,856,584
GRAND TOTAL ..	629,927,141	625,030,199	688,421,750

The spinning of yarn is in a large degree centred in Bombay, the mills of that province producing nearly 75 per cent. of the quantity produced in British India. The United Provinces of Agra and Oudh and Madras produced about 7 per cent. each, while Bengal and the Central Provinces produced 5.5 and 4.7 per cent. respectively. Elsewhere the production is as yet very limited.

**BOMBAY SPINNERS.**

Here is a detailed statement of the quantity (in pounds) and the counts, or numbers, of yarn spun in Bombay island:—

	1910-11.	1911-12.	1912-13.
Nos. 1 to 10 .. .. .	81,141,272	81,453,298	95,429,461
" 11-20 .. .. .	171,213,992	170,766,063	188,102,363
" 21-30 .. .. .	63,045,859	70,058,529	74,850,464
" 31-40 .. .. .	4,313,591	4,551,901	4,420,751
Above 40 .. .. .	650,137	705,207	837,260
Wastes, &c. .. .. .	62,288	105,900	40,701
TOTAL ..	320,427,130	327,640,898	363,681,000

**YARN AT AHMEDABAD.**

The corresponding figures for Ahmedabad are as follows:—

	1910-11.	1911-12.	1912-13.
Nos. 1-10 .. .. .	1,861,237	2,279,985	2,039,670
" 11-20 .. .. .	12,732,595	15,282,525	15,656,673
" 21-30 .. .. .	34,227,622	36,599,568	37,049,666
" 31-40 .. .. .	11,181,752	12,404,849	11,687,071
Above 40 .. .. .	808,061	1,014,041	1,375,446
Wastes, &c. .. .. .	7,336	4,856	1,662
TOTAL ..	60,818,603	67,585,824	67,810,104

## YARN SPUN THROUGHOUT INDIA.

The grand totals of the quantities in various counts of yarn spun in the whole of India; including Native States, are given in the following table:—

—					1910-11.	1911-12.	1912-13.
Nos. 1—10	..	..	..	..	115,752,293	116,179,494	136,998,204
„ 11—20	..	..	..	..	336,438,592	338,330,790	369,366,800
„ 21—30	..	..	..	..	137,466,016	149,332,247	158,816,211
„ 31—40	..	..	..	..	18,034,988	20,280,954	19,641,700
Above 40	..	..	..	..	1,840,547	2,109,468	2,937,880
Wastes, &c.	..	..	..	..	394,705	704,246	660,955
TOTAL ..					600,927,141	625,030,190	688,421,750

In the early days of the textile industry the energies of the millowners were largely concentrated on the production of yarn, both for the China market, and for the handlooms of India. The increasing competition of Japan in the China market, the growth of an indigenous industry in China and the uncertainties introduced by the fluctuations in the China exchanges consequent on variations in the price of silver compelled the millowners to cultivate the Home market. The general tendency of recent years has been to spin higher counts of yarn, importing American cotton for this purpose to supplement the Indian supply, to erect more looms, and to produce more dyed and bleached goods. This practice has reached a higher development in Bombay than in other parts of India, and the Bombay Presidency produces nearly 87 per cent. of the cloth woven in India. The United Provinces produces 3.8 per cent. the Central Provinces 5 per cent. and Madras about 3 per cent. Grey (unbleached) goods still represent nearly 77 per cent. of the whole production, but dyeing and bleaching are making rapid progress.

## ANALYSIS OF WOVEN GOODS.

The following brief extract is taken from the statement of the quantity (in pounds and their equivalent in yards) and description of woven goods produced in all India, including Native States:—

—					1910-11.	1911-12.	1912-13.
Grey and Bleached piece-goods—							
Pounds	..	..	..	..	191,735,643	204,901,143	211,108,193
Yards	..	..	..	..	829,196,807	883,380,619	914,163,220
Coloured piece goods—							
Pounds	..	..	..	..	51,786,494	59,554,232	71,828,052
Yards	..	..	..	..	213,544,846	252,770,980	306,251,309
Grey and coloured goods other than piece goods—							
Pounds	..	..	..	..	1,597,640	1,636,191	1,812,894
Yards	..	..	..	..	485,576	46,702	415,133
Hosiery—							
Pounds	..	..	..	..	623,729	497,006	500,997
Dozens	..	..	..	..	339,645	273,478	284,799
Miscellaneous—							
Pounds	..	..	..	..	71,367	85,684	217,668
Total—							
Pounds	..	..	..	..	245,814,873	266,644,756	285,467,804
Yards	..	..	..	..	1,042,741,653	1,136,151,490	1,220,414,529
Dozens	..	..	..	..	825,221	690,480	699,932

**BOMBAY WOVEN GOODS.**

The output of woven goods during the three years in the Bombay Presidency was as follows. (The weight in pounds represents the weight of all woven goods; the measure in yards represents the equivalent of the weight of the grey and coloured piece-goods.)

	1910-11.	1911-12.	1912-13.
Pounds .. .. .	199,531,111	219,437,846	230,200,332
Yards .. .. .	860,018,057	950,404,102	1,001,636,902
Dozens .. .. .	658,602	543,108	485,076

The grand totals for all India are as follow:—

	1910-11.	1911-12.	1912-13.
Pounds .. .. .	245,814,873	266,644,256	285,467,804
Yards .. .. .	1,042,741,653	1,136,151,590	1,220,414,520
Dozens .. .. .	825,221	600,180	600,032

**Cotton Exports.**

Cotton manufactures represent 21·3 per cent of the total value of Indian manufactures exported and 5·0 per cent. of the whole export trade. The outstanding features of last year, (1912-13) so far as the Indian cotton industry was concerned, were the great activity, the continued strength of the price of indigenous cotton, the increased importation of long staple cotton required for fine fabrics and that improvement in the relative position of the spinning section which was felt almost throughout the world. In sum, the year was one of exceptional prosperity in the industry. A calculation, based on the output of yarn in the twelve months in relation to the number of spindles in position, shows that the activity of the whole spinning industry was about 75·84 per cent. of its capacity, while a similar calculation relating to looms shows an average 78·76 per cent. of its maximum activity. Some gauge of the public estimation of the position is afforded by the fact that a calculation

based upon the share values of fifty spinning and weaving companies shows the value per Rs. 100 of share capital at the end of March in each of the last four years to have been as follows: 1910, Rs. 132; 1911, Rs. 104; 1912, Rs. 115; 1913, Rs. 131. So here there was a rise, whereas a similar calculation about Lanchashire mills showed a drop of value since the previous year. The joint stock capital engaged in the industry Rs. 20·07 crores as compared with Rs. 19·85 crores in 1911-12 and the number of mills was 263, as against 268 in 1911-12. In 1911-12 the number of spindles has grown from 6,357,460 to 6,463,929, the number of looms from 85,352 to 88,951, and the number of hands employed from 230,649 to 243,637. The average production of yarn per mensem has increased from 52,085,850 to 57,368,479 lbs. The rates of increase have therefore been as follows: Capital 1·11 per cent. spindles 1 per cent. looms 3·8 per cent. production of yarn 10·14 per cent. and labour 8·74 per cent.

The following statement shows the quantities and values of yarn and piece-goods exported:—

Unit 1000.		Yarn.		Piece-goods.	
		lbs.	Rs.	Yards.	Rs.
Average of previous three years ..		187,426	8,64,11	91,785	2,07,07
1911-12 .. .. .		151,489	7,59,01	81,429	1,96,66
1912-13 .. .. .		203,061	9,91,68	86,513	2,09,86

The power-spun yarn retained for consumption in India seems to have increased to some 514,318,000 lbs. Of the consumption, about 92 per cent. is usually Indian yarn and 8 per cent. imported. Yarn was produced in India in 1912-13 to the extent of 688,421,750 lbs. as against 625,930,190 lbs. in previous year. The exports of yarn improved by 31·6 per cent. In the weav-



ing section, the year was probably the best on record. The production of cloth has never been exceeded. It increased by 84,262,939 yards or 7.4 per cent. Of the total production of 1,220,414,529 yards, India appears to have absorbed 1,098,034,000 yards which is more by 77,848,969 yards than in 1911-12 and the piece-goods exported advanced by 5,083,402 yards.

### Progress of the Mill Industry.

The following statement shows the progress of the Mill Industry in the whole of India.

Year ending 30th June.	Number of Mills	Number of Spindles.	Number of Looms.	Average No. of Hands Employed Daily.	Approximate Quantity of Cotton Consumed.	
					Cwts.	Bales of 392 lbs.
1897 .. .. .	173	4,065,618	37,584	144,335	4,553,276	1,300,936
1898 .. .. .	185	4,259,720	38,013	148,064	5,184,648	1,481,828
1899 .. .. .	188	4,728,333	39,069	162,108	5,863,165	1,675,190
1900 .. .. .	193	4,915,783	40,124	161,180	5,086,732	1,453,352
1901 .. .. .	193	5,006,936	41,180	172,883	4,731,090	1,351,740
1902 .. .. .	192	5,006,965	42,584	181,031	6,177,633	1,765,038
1903 .. .. .	192	5,043,297	44,092	181,399	6,087,690	1,739,340
1904 .. .. .	191	5,118,121	45,337	181,779	6,106,681	1,744,766
1905 .. .. .	197	5,163,186	50,139	195,277	6,577,354	1,879,244
1906 .. .. .	217	5,279,595	52,668	208,616	7,082,306	2,023,516
1907 .. .. .	224	5,333,275	58,430	205,696	6,930,595	1,980,170
1908 .. .. .	241	5,756,020	67,920	221,195	6,976,250	1,991,500
1909 .. .. .	259	6,053,231	76,898	236,921	7,381,500	2,109,000
1910 .. .. .	263	6,195,671	82,725	233,624	6,772,535	1,935,010
1911 .. .. .	263	6,357,160	85,352	230,649	6,670,531	1,905,866
1912 .. .. .	268	6,463,929	88,951	213,637	7,175,357	2,050,102

### Comparative Figures.

In Great Britain, the United States of America and in India, there are 1,968 mills, 1,777 mills and 268 mills respectively. The number of spindles in each country is as follows:—5.81 crores, 3 crores and 65 lakhs for India; looms 7.58 lakhs, 6.70 lakhs, and 89,000 for India; the number of hands employed, 6.27 lakhs for Great Britain, 3.18 lakhs for America and 2.44 lakhs for India; cotton consumed in bales, 44.38 lakhs, 51 lakhs and 20 lakhs Indian bales for India. If these Indian bales, which are 392 lbs. per bale are reduced to American bales, which are 500 lbs. bales, the number of bales consumed in India would be about 20 per cent. less. The wages earned by the workmen of each country are as follows:—England 48.90 crores per annum, America 33.40 crores, India 6.53 crores. The value of the goods produced by each country comes to about 225 crores for England, 225 crores for America, 37.50 crores for India. Out of her total production England retains 20 per cent. for home consumption,

America 94 per cent., and India 79 per cent.

### Wages.

The following comparison of wages has been prepared by a Mill Proprietor. "Wages come to 2.68 crores for Bombay, which employs 1.10 lakh workers. The Bombay Mills employ a very expensive staff of managers and overseers. To them and all other office and clerical staffs, 26 lakhs were given; so if this sum is deducted the workman proper got 2.42 crores, or Rs. 220 per annum per head. The English workman gets Rs. 780 per annum and the American workman gets Rs. 1,050 per annum. If the same test of profits and wages to the whole of India is applied, then for 1912 the industry as a whole earned 6.34 crores and wages to workmen proper would come to 5.90 crores and to the staff 63 lakhs, or a total of 6.53 crores to be divided amongst 2.43 lakh hands which are employed in India. The average rate of wages at this figure would work out at Rs. 269 per annum."

Statement of the amount in rupees of Excise duty realised from goods woven in the Cotton Mills in British India; under the Cotton Duties Act, II of 1896; also the amount of equivalent duty levied in the Native States; in each year from 1895-96 to 1912-13.

			Bombay	Madras.	Bengal.	United Provinces of Agra and Oudh (also Ajmer-Merwara).	Punjab.	Central Provinces and Berar (a)
1895-96 (b)	..	..	196	496	69	4,250	615	....
1896-97	..	..	9,14,480	56,300	4,480	45,870	13,270	89,010
1897-98	..	..	9,60,600	66,470	1,180	44,350	11,460	79,269
1898-99	..	..	11,26,390	89,130	900	61,000	12,730	84,969
1899-1900	..	..	10,05,236	88,678	2,523	54,818	10,448	88,109
1900-01	..	..	10,28,512	41,827	5,038	50,116	5,806	84,978
1901-02	..	..	15,26,103	54,139	5,863	69,284	4,379	1,10,140
1902-03	..	..	15,84,121	67,813	6,605	74,023	3,031	1,30,620
1903-04	..	..	17,64,527	62,350	10,908	89,189	1,104	1,56,371
1904-05	..	..	20,43,832	65,379	11,929	96,710	2,607	1,61,368
1905-06	..	..	22,78,425	1,10,913	11,165	1,32,361	5,144	1,68,743
1906-07	..	..	24,36,265	1,32,693	23,709	1,35,884	7,464	1,64,680
1907-08	..	..	28,82,296	1,35,131	31,556	1,66,014	8,746	1,75,944
1908-09	..	..	29,51,859	1,42,295	53,351	1,88,345	9,509	1,98,419
1909-10	..	..	33,88,658	1,45,333	55,822	1,92,552	6,611	2,17,217
1910-11	..	..	36,78,555	1,48,136	56,359	1,82,083	7,300	2,07,818
1911-12	..	..	42,17,878	1,65,048	48,631	1,84,653	10,862	2,52,415
1912-13	..	..	48,27,698	2,06,864	80,040	2,11,846	18,381	2,71,882

	Total British India.		Native States.	Grand Total.	
	Gross duty.	Net duty.	Gross duty.	Gross duty.	Net duty.
1895-96 (b)	..	..	244	5,879	5,879
1896-97	..	..	18,459	11,41,899	11,10,049
1897-98	..	..	47,835	12,14,164	11,86,785
1898-99	..	..	52,186	14,27,305	14,05,506
1899-1900	..	..	40,937	13,80,749	13,50,451
1900-01	..	..	48,419	12,64,750	12,11,396
1901-02	..	..	61,171	18,31,079	17,77,995
1902-03	..	..	65,541	19,31,754	18,91,010
1903-04	..	..	59,061	21,36,510	20,95,149
1904-05	..	..	67,320	24,49,145	24,06,976
1905-06	..	..	83,455	27,90,239	27,54,516
1906-07	..	..	81,970	29,82,671	29,46,152
1907-08	..	..	97,499	34,97,216	34,53,443
1908-09	..	..	1,14,498	36,58,276	36,12,977
1909-10	..	..	1,37,699	41,43,892	40,98,719
1910-11	..	..	1,75,878	44,56,129	44,01,707
1911-12	..	..	1,82,479	50,61,057	49,86,971
1912-13	..	..	2,21,178	58,38,489	57,97,787

(a) From the 1st October 1902 from which date the province was leased in perpetuity to the British Government.

(b) For February and March 1896.

## The Jute Industry.

Considering its present dimensions, the jute industry of Bengal is of very recent origin. The first jute mill in Bengal was started at Rishra in 1855, and the first power-loom was introduced in 1859. The original outturn was 8 tons per day. In 1909 it had grown to 2,500 tons per day, it is now 2,400 tons per day (working short time), and it shows every indication of growing and expanding year by year. Another interesting thing about the jute industry of Bengal is that, although it is practically a monopoly of Scotsmen from Dundee, the industry itself owes its inception to an Englishman. The founder of the industry was George Acland, an Englishman, who began life as a midshipman in the navy, and was for some years in the East India Marine Service. He quitted this service while still a young man, and engaged in commercial pursuits in Ceylon, where he was successful. Later on he turned his attention to Bengal, and arriving in Calcutta about 1853 he got into touch with the management of the paper works, then at Serampore, where experiments were being tried with country grasses and fibre plants to improve the quality or cheapen the manufacture of paper. This seems to have suggested to Acland the manufacture of rees, and in 1854 he proceeded to England, with a view to obtaining machinery and capital in order to manufacture goods from that material. During this trip he visited Dundee, and while there Mr. John Kerr, of Douglas Foundry, suggested to him the importing of machinery into Bengal "where the jute comes from and spin it there." This suggestion bore fruit, for shortly afterwards Acland placed orders with Kerr for a few systems of preparing and spinning machinery, and returned to India the same year accompanied by his two sons and a few Dundee mechanics who were to assist him in erecting and operating the first jute mill in Bengal. This, as has been stated, was at Rishra, the site of the present Wellington mills, near Serampore, and here, in 1855, the first machine spun jute yarns were made. As not infrequently happens the pioneer got very little out of his venture. After several ups and downs the Acland interest in the Rishra mill ceased in 1867, and the company which Acland had formed in 1854 was wound up in 1868.

**Power-loom.**—The pioneer's example was followed by Mr. George Henderson of that ilk and firm, and in 1859 the Borneo Jute Co. was launched under his auspices. To this company is due the credit of introducing the power-loom for jute cloth. Unhindered by the financial difficulties which had hounded the Aclands, the Borneo Jute Co. made rapid progress, doubling their works in 1864, and clearing their capital twice over. In 1872 the mills were turned into a limited liability company, the present "Barnagore Jute Manufacturing Co., Ltd.," which is credited at the present moment with making a monthly profit of three lakhs. Four other mills followed in succession—Gouripore, Serajunge, and India Jute Mills.

"From 1868 to 1873," writes Mr. David Wallace in "The Romance of Jute," "the five mills excepting the Rishra mill simply

coined money and brought the total of their looms up to 1,250." To illustrate the prosperity of the industry at this period we may take the dividends paid by the Barnagore Company. On the working of their first half year, a 15 per cent. interim dividend was declared, which seemed to justify the enormous capital at which the company was taken over from the Borneo Company, and shares touched 68 per cent. premium. The dividend for the first year, ending August 1873, was 25 per cent., for 1874, 20 per cent., and for 1875 10 per cent. Then came a change. The investing public had forgotten the effect of the Port Canning bubble, and the condition of the jute industry in 1872-73 seeming to offer a better return than coal or tea, both of which had just enjoyed a boom, it was only necessary to issue a prospectus of a jute mill to have all the shares snapped up in the course of an afternoon.

In 1872-73 three new companies were floated locally—the Fort Gloster, Budge Budge and Sibpore, and two Home companies, the Champdany and Samnugger, all of which commenced operations in 1874. In 1874-5 eight other mills were launched—the Howrah, Oriental (New Union), Asiatic (now Soorah), Clive, Bengal Pressing and Manufacturing Co. (now the Bellaghata-Barnagore branch mill), Rustonjee (now the Central), Ganges (registered in England), and Hastings, owned by Messrs. Birkmyre Bros., of Greenock fame—in all thirteen new companies, coming on all of a heap and swelling the total looms from 1,250 up to 3,500. This was too much of a strain for the new industry, and for the next ten years all the mills had a severe struggle. The older ones all survived the ordeal, but four of the new concerns—the Oriental, the Asiatic, the Bengal Pressing and Manufacturing Co. and the Rustonjee—became moribund, to appear again later on under new names and management. Fort Gloster also suffered badly.

Between 1875 and 1882 only one new mill was put up. This was Kamarhatty, promoted by Messrs. Jardine, Skinner & Co., which came into being in 1877, as the result of Dr. Barry's visit to Calcutta in 1876, when he transferred the agency of the Gouripore Co. from Messrs. Jardine, Skinner & Co. to his own firm. \*This mill, together with additions made by some of the other mills, brought the total looms up to 5,150 in 1882. By the end of 1885 the total was further augmented by the Hooghly, Titaghur, Victoria, and Kankannarh mills, bringing the number of looms at work up to 6,700. From this period on to 1894 no new mills came into existence except the Calcutta Twist Mill, with 2,400 spindles, since merged into the Wellington branch of the Champdany Co. Between 1896 and 1900 the following new mills were started:—the Gordon Twist Mill with 1,800 spindles (now the Fort Gloster Branch mill), Khardah, Gondolpara (French owned), Alliance, Arathoon, Anglo-India, Standard, National, Delta (which absorbed the Serajunge), and the Kinnison. A hull of four years witnessed large extensions to the existing mills, after which came the following series of new

mills, besides further heavy extensions—Dalhousie, Alexandria, Naihati, Lawrence, Reliance, Belvedere, Auckland, Kohn and Northbrook. In 1909, 38 companies were at work with a loom power of 30,685, of which 17,735 were for Hessians, and a total of 6,77,070 spinning spindles, employing all told about 184,110 Indian hands and about 450 European assistants, a total representing the entire population of Dumdee of those days. In 1895 there were only 9,701 looms and 2,03,522 spindles employing 57,000 hands and 180 European assistants. In 1913 there were 37,316 looms and about 700,000 spindles, and the population employed exceeded 200,000 including about 500 Europeans. The number of companies at work was 43, and the total number of mills 45. The nominal aggregate share capital of Bengal jute mills in 1911-12 was Rs. 7,29,55,000; paid up capital in the same year, Rs. 6,81,96,200; aggregate debentures, Rs. 80,15,500.

**The Jute Mills Association** now one of the most important, if not the most important, of the bodies affiliated to the Bengal Chamber of Commerce, was started under the following circumstances:—In 1886 the existing mills, finding that, in spite of the constant opening up of new markets, working results were not favourable, came to an agreement, with the late S. R. J. Clarke, Secretary to the Chamber of Commerce as trustee, to work short time. The only mills which stood out of this arrangement were the Hooghly and Serajunge. The first agreement, for six months dating from 15th February 1886, was subsequently renewed at intervals without a break for five years up to February 15, 1891. The state of the market at the time of the renewals dictated the extent of the short time, which varied throughout the five years between 4 days a week, 9 days a fortnight and 5 days a week. Besides short time, 10 per cent. of the sacking looms were shut down for a short period in 1890. An important feature of this agreement was a mutual undertaking by the parties not to increase their spinning power during the currency of the agreement, only a few exceptions being made in the case of a few incomplete new mills.

In 1890, with a view to further improving the situation, the associated mills entered into a compact to fix a scale of minimum selling rates for fabrics used in the country trade, rates for markets west of Suaz to be left open. This artificial attempt to improve the mill sale-sheets lasted for about 18 months, and had a disastrous effect on mutual confidence among the mills. All sorts of ruses to get round the minimum scale were adopted, and recrimination became the order of the day. Certain of the more favoured mills encouraged a sort of double barrelled business by which they were able to dispose of country goods at the fixed rates in consideration of selling a quantity of foreign goods at buyers' prices. This, combined with other devices adopted by certain mills, had the effect ultimately of breaking up all combination among the mills. Nor has the jute trade ever been able to work in complete harmony since. Mutual suspicions have rendered it very difficult even to work

half time on occasion, and the moment demand shows the slightest sign of catching up supply, nothing on earth will prevent one mill after the other putting in new extensions and thus hastening the moment when supply will overtake demand.

**Working days.**—With the introduction of the electric light into the mills in 1890, the working day was increased to 15 hours, Saturdays included, which involved an additional amount of cleaning and repairing work on Sundays. In order to minimise this Sunday work and give them a free Sunday, an agitation was got up in 1897 by the Mill European assistants to have the engines stopped at 2 or 3 p. m. on Saturdays. The local Government took the matter up, but their action went no further than applying moral suasion, backed by a somewhat half-hearted threat. The Mill Association held meetings to consider the question and the members were practically agreed as to the utility of early closing on Saturdays, but, *more so*, could not trust themselves to carry it out without legislation. Unfortunately the Government of India refused to sanction the passing of a Resolution by the provincial Government under the Factory Act and the matter was dropped. Several other abortive attempts were made later on to arrive at some agreement relative to short time, but they mostly failed. Only a year or two ago the Jute Mills Association in despair brought out an American business expert, Mr. J. H. Parks, to advise them on the possibility of forming a jute trust with a view to exercising some control over the production and price of jute. Mr. Parks came, and wrote a report which the Association promptly pigeon-holed because the slump was over and the demand was so prodigious that there was no need to worry about the price of jute. Hard times are once more looming ahead, and it is possible that Mr. Parks' scheme may be withdrawn from its resting place and studied with a view to applying it to future exigencies. It is doubtful, however, whether even Mr. Parks can introduce amity of purpose and consistency in action to the jute trade in Bengal.

**Increase in looms.**—Mr. Percy Newson, of Messrs. Jardine, Skinner & Co., the well known authority on the jute trade, gives the following interesting figures showing the increase in looms at work during the past 18 years:—

1895	..	..	..	..	9,481
1896	..	..	..	..	11,490
1897	..	..	..	..	13,405
1898	..	..	..	..	14,278
1899	..	..	..	..	14,278
1900	..	..	..	..	15,336
1901	..	..	..	..	16,640
1902	..	..	..	..	17,597
1903	..	..	..	..	19,741
1904	..	..	..	..	23,018
1905	..	..	..	..	23,884
1906	..	..	..	..	26,799
1907	..	..	..	..	29,074
1908	..	..	..	..	30,824
1909	..	..	..	..	31,755
1910	..	..	..	..	32,711
1911	..	..	..	..	32,632
1912	..	..	..	..	37,316

## The Handloom Weavers.

By F. Booth Tucker.

Next to agriculturists the handloom weavers of India rank second in numerical importance among her skilled industrial workers. In round figures about 11 million souls are dependent on this industry. From a position of prosperity and even affluence they have suddenly been reduced, through no fault of their own, but by circumstances over which they have no control, and which it was impossible for them to foresee, to a condition of indigence and even starvation. Taking a superficial view of the situation one might be tempted to say that the remedy is in their own hands. Let them forsake their homes and take service in the mills and the problem will be solved. But this would be a short sighted and unwise policy. There are fundamental objections to it which cannot be overlooked.

What the handloom industry of India calls for is *not* annihilation, but leadership. To invite a noble and ancient industry which has been for many ages one of the main bulwarks of India's prosperity voluntarily to commit "harakiri" is a height of self-sacrifice of which even Japanese models would hardly approve. The mill-owners of Lancashire would no doubt benefit greatly—at least for the time being—if they could persuade the foolish mill-owners of India that in view of Lancashire's superior skill, intelligence, education, capital or other causes, the latter ought promptly to commit suicide, and if they could persuade the Government of India that in bolstering up the industry in its unequal struggle they were embarking in a wasteful and useless expenditure of money and energy, and that their proper course would be to tax it out of existence, or at least abandon it to its fate!

### Training Schools.

Unfortunately in the case of the voiceless handloom weavers the mill interests have to a large extent overpersuaded Government that it is useless to help them to sustain the unequal struggle. Nearly every handloom weaving school in India and elsewhere has sooner or later been converted into a training school for mill foremen and managers, aspiring to salaries of from Rs. 50 to Rs. 500. What wonder when it is remembered that the managers of these institutions have been almost without exception themselves trained in mill schools to mill methods, and have become accustomed to look down upon the handloom industry, and to regard it as being doomed to extinction.

Similarly, when Government have appointed experts, or committees, to investigate the question and to report on the advisability and best means of helping the handloom weaver, to whom has the duty been entrusted? Almost invariably to mill experts, whose verdict has been a foregone conclusion. They might well have saved themselves the trouble and expense. I have sometimes written to such persons myself and urged them to confer with our own experts, who have been engaged in the exclusive study of the problem for the last 7 or 8 years, or to allow me an opportunity

of presenting personally the handloom weavers' side of the story, and almost without exception they have been too busy, or have not been able to visit the centres suggested, or have paid them a cursory and contemptuous call, while a more or less one-sided report has been presented, which has frequently resulted in Government withholding its much-needed help, from this struggling community and further generously subsidising the wealthy mill-schools!

Not that the two interests are necessarily opposed to each other, any more than are the Infantry and Cavalry of an army in the field. While Indian mills are looking abroad for markets for their yarn, the 11 million skilled weavers at their door are well worthy of their consideration and should form the most valuable market for their output. Mills that will study the requirements of this home field, need not look outside the four corners of India for many a year to come.

### What is wanted.

What the handloom weavers of India need is:—

1. Leadership. They are like sheep without a shepherd. The few leaders that have hitherto been supplied them have too often been wolves in sheep's clothing, who have failed either to understand their needs, or win their confidence.
2. The second great need is instruction in improved methods.
3. The weaver must also be placed in touch with the markets of the world.
4. This will involve a generous expenditure of money by Government in doing for the weaver what he obviously cannot do for himself. But the outcome will abundantly repay the outlay.

Properly led, properly instructed and properly connected with the world's great cloth bazaar, the weaver of India may yet again become India's pride, and the merchants of the world may yet again vie with one another in seeking the products of his age-learned skill.

The task is not nearly so difficult as it seems. The machinery exists, but needs extension and expansion. There are some things which the weaver can, must and will do for himself. There are other things which must be done for him.

### Leadership.

1. He must be supplied with Leaders who know his needs and in whom he can safely trust. These leaders ought not, save under exceptional circumstances, to be chosen from his rivals. The mill-trained expert is, as a rule, of very little use to him and is often a positive source of danger. The leaders whom he needs must be in thorough sympathy with his cause, must understand his conditions, must include those who are able themselves to handle the shuttle and must not be mere students and theoreticians. And here I would like to say that it is highly dangerous for a

Presidency, or State to allow their policy towards the handloom weaver to be dictated by a young graduate from a mill school. We should not dream of putting the cleverest University Graduate to fill the chair of a Commissioner or to dictate the policy of Government, because he had gained honours in Political Economy, Science, Languages or other elements of knowledge. And yet in not a few instances the destinies of the vast weaving community have been entrusted to the guidance of the merest tyroes in this difficult art! What wonder that the ship has soon been wrecked and consequently abandoned, and then the cause regarded as hopeless.

The great majority of these Leaders will have to be selected from the weavers themselves and not from callow unfledged students of the theory of their art.

### Suitable Schools Needed.

2. Therefore they must have suitable Schools. I say suitable, because many of the schools established for their benefit have been anything but suitable. Frequently it has been necessary to close them for this very reason. The founder of one such brought the Governor of his Presidency to warn the weavers that if they failed to drink at the fountain of textile knowledge which Government had at great expense established for them, it would be his painful duty to stop its unvalued flow. One man could lead them to water, but even a Government could not force the unwilling horse to drink. Soon afterwards the institution was closed, and the weavers of course were blamed for their stupidity.

By a suitable school I mean,

(1) A school that is under the sympathetic management of a leader who understands the weavers' needs and can win their confidence.

(2) A school in which the teachers can themselves weave and can consequently be looked up to by the weavers.

(3) A school exclusively for weavers and not for mill-students, nor a combination of the two. A school in which the adult weaver is taken by the hand and taught improved methods. His advice, assistance, suggestions and objections should be encouraged, and he should be given the free opportunity to choose for himself the kind of implements, materials and methods which he himself may prefer, within, of course, reasonable limits. He may not be able to read, or write, but when it comes to questions of his own particular art, he will usually exhibit a shrewdness, alertness and common sense, which should be developed and encouraged.

(4) Being a family man, the adult weaver must receive such remuneration as he may require for the support of his family, while learning improved methods.

(5) The school must be in close touch with the world's markets and must teach the weaver the kinds of cloth that it will pay him to make. The weaver is keenly awake to the commercial side of his undertaking and will appreciate such assistance. The mere theoretical pedagogues are bad enough in an ordinary educational

system, stuffing too often our children's heads with useless knowledge, but in a weaving school he spells blue ruin to its best interests.

(6) The weaver ought to be helped by means of loans and time payments to become the owner of the improved implements of which he has been taught the use, should he so desire. He should be allowed to select those which he himself prefers and should be enabled to pay for them by instalments.

(7) Travelling branches should be established which can go from village to village at regular intervals, explaining methods, inviting criticisms, establishing centres and helping to market the produce of the weavers, and to obtain for them good yarn at reasonable prices.

### Marketing of Produce.

3. The marketing of produce is not so difficult as might at first sight appear. Each centre should gradually work up a market of its own, and when one line ceases to yield a reasonable profit, another should be substituted; as the weavers become better organized and trained, the market will gradually run after them.

We have ourselves established in connection with our various weaving schools a trading agency which takes over the whole of their output, and whose business it is to find out what the markets require. It works on a strictly business basis and greatly facilitates the working of our schools.

It is now some eight years since the Salvation Army took up the cause of the handloom weavers of India, and I think that we may claim to have gained a thorough working knowledge of their needs, and to have largely won their confidence.

One of our Officers has invented a loom which has been generally accepted as the best and fastest handloom in existence. What is even more important, it works so easily that a child can use it. Thus all the members of a weaver's family can work it in turn and bring their output almost to a level with that of a mill. Fast slays for throwing the shuttle can be obtained from Rs. 7, and upwards, and the complete loom from Rs. 35 and upwards.

A fast loom is of no use to a weaver without a warping machine that can turn out long warps. For this we have a very simple device suitable for village use. One warping machine can keep some twenty fast looms supplied with warps. The cost of this machine is only Rs. 35.

The preparation of thread from cotton, wool, or silk has also received our attention, and improved methods have been introduced which are greatly appreciated by the weavers and villagers. Improved spinning and reeling machines can be obtained for Rs. 15 and upwards.

The price of the implements has been brought down to the lowest point consistent with good workmanship and materials. The strain upon a fast loom is very severe, and unless it is well made it soon goes to pieces. The weavers themselves well understand this and prefer a good machine, even if it costs more.

**Salvation Army Work.**

We have already 20 centres of our own in India, where weaving, warping and silk reeling are being taught, while we have helped to start many others of a similar character. The influence of our work has spread to other lands, and we have supplied looms, or weaving masters to Ceylon, the Straits Settlements, Burma, China and Rhodesia. I would close with quoting the testimony of a Burmese merchant who came over to our Ludhiana Weaving School to study the suitability of our methods for his country.

"I arrived here on the 31st March 1913 to study the workings of the School and Looms, and on the 2nd of April, *i.e.*, in two days' time I found to my surprise that I could weave at

the rate of fifty picks per minute. A little more care and attention one could weave on these looms thoroughly in a fortnight. I at once placed an order for 5 looms, one warping machine and accessories, amounting in all to about Rs 1,100 which were done and promptly despatched to my entire satisfaction. I am leaving with regret on Saturday. The school management and discipline are thorough and up-to-date. The Manager is hard working, energetic and industrious. I fear he and his subordinates are overworked. The Manager is generous and attentive. I am surprised to find the S. A. Officers here undergoing a life of sacrifice from choice. The way he and his staff do their duties cheerfully made me a disbeliever, love respect and honour them." (Sd.) MAUNG HLA PE, Mandalay. Burmah.

## Indian Tea.

Tea is chiefly cultivated in India, in Assam, Bengal and Southern India, the cultivation elsewhere being comparatively unimportant. The latest available statistics are those for the year 1912, which were published last September. They show a total area of 591,833 acres under tea, of which 544,807 acres were plucked in 1912. There were 374 tea gardens in Bengal, 746 in Assam and 241 in Southern India. The total number of plantations was 4,456, being an increase of 42 since 1911. The area under cultivation has increased since 1885, when agricultural statistics were first compiled, by 108 per cent. and production by 314 per cent. The average production per acre for the whole of India, excluding Burma (where the produce of the tea gardens is almost wholly converted into wet pickled tea, which is eaten as a condiment) was 544.7 lbs. in 1912.

### Area and Production.

The total area under tea in 1912 was divided between the different Provinces as follows:—

Assam—	Acres.
Brahmaputra Valley .. ..	222,428
Surma Valley (Cachar and Sylhet) ..	139,243
Total, Assam .. ..	361,671
Bengal—	
Darjeeling .. ..	51,767
Jalpaiguri .. ..	94,168
Chittagong .. ..	4,562
Total, Bengal .. ..	150,497
Bihar and Orissa (Chota Nagpur) ..	2,282
United Provinces .. ..	7,797
Punjab .. ..	9,315
Total, Northern India .. ..	17,112
Madras .. ..	24,396
Travancore .. ..	34,160
Total, Southern India .. ..	58,556
Burma .. ..	1,715
Grand Total .. ..	591,833

The total production in 1912 was 295,870,296 lbs., divided as follows:—

	Lbs.
Assam .. ..	198,798,283
Bengal .. ..	68,509,663
Bihar and Orissa .. ..	269,072
Northern India .. ..	4,587,790
Southern India .. ..	23,615,488
Total .. ..	295,870,296

### Exports.

The following were the exports of Indian tea by sea:—

	Lbs.
United Kingdom .. ..	198,457,842
Russia .. ..	33,126,071
Other European Countries .. ..	1,189,082

	Lbs.
Egypt .. ..	1,643,585
Elsewhere in Africa .. ..	935,307
Canada .. ..	11,420,520
U. S. A. .. ..	2,306,702
Rest of America .. ..	55,430
Ceylon .. ..	4,214,551
China (exclusive of Hong-Kong and Macao) .. ..	9,111,217
Asiatic Turkey .. ..	4,399,145
Rest of Asia .. ..	2,346,188
Australasia .. ..	9,396,855

Total by Sea .. 278,001,480

The exports by land were as follows:—

Afghanistan .. ..	2,426,928
Total by land .. ..	3,213,840

The sea and land exports together make, therefore, a

Grand Total of .. 281,815,329

### Features of the Trade.

The most striking features of the trade in 1912 were as follows:—Exports by sea improved by 17,739,107 lbs. as compared with 1911-12. Shipments to the United Kingdom were greater by some 5.54 million lbs.: while Russia took 6.71 million lbs., or some 25.4 per cent more. Exports to Germany were better by some 17,000 lbs., and those to Austria-Hungary by some 42,000 lbs. or 50.5 per cent. There was an improvement in the demand from Italy and Roumania, but Belgium, Denmark, France, Holland, Norway, Sweden, and Turkey, European took smaller quantities. Some 332,500 lbs. more were exported to Egypt, and Canada's takings improved by some 848,700 lbs. The United States took some 839,000 lbs. less. China increased her demand by some 4,000,000 lbs., but Ceylon took 101,000 lbs. less. Shipments to Australia and New Zealand were smaller by 625,000 lbs.

During the five years 1903-04 to 1907-08 the percentage of the Indian tea crop sent to the United Kingdom steadily diminished. The two succeeding years showed some improvement, but 1910-11 saw a marked decline, and although this was made good to a certain extent in 1911-12, the percentage fell still lower in 1912-13. As regards exports to other countries in Europe, the setback experienced in 1911-12 has been made good, the shipments of 1912-13 approaching practically those of 1910-11—a record year. A feature of the trade of 1912 was the considerable advance in shipments to Asian countries, such as China and Asiatic Turkey.

The following table shows the consumption of Indian tea in India:—

Year.	Lbs.
1908-09 .. ..	18,260,533
1909-10 .. ..	13,477,297
1910-11 .. ..	14,224,808
1911-12 .. ..	15,294,472
1912-13 .. ..	19,805,560



The following statement illustrates the variations in prices of the three principal grades of tea sold at the auction sales in Calcutta in 1888 and the past five years, the average price of 1888 being taken as 100 in each case. The figures represent the average of the prices of tea from all districts at each sale:—

Year.	Broken Pekoe.		Pekoe.		Pekoe Souchong.	
	Price.	Variation.	Price.	Variation.	Price.	Variation.
	Rs. p.		As. p.		As. p.	
1888 .. .. .	10 3	100	8 1	100	6 3	100
1908 .. .. .	6 6	63	6 0	74	5 2	83
1909 .. .. .	7 8	75	6 9	84	5 0	96
1910 .. .. .	7 3	71	7 0	87	6 4	101
1911 .. .. .	7 9	76	7 7	94	6 6	108
1912 .. .. .	7 5	72	6 11	86	6 9	92

The average price realised on sales of Indian tea on garden account in London from July 1st 1912 to June 20th 1913, was 8'65*d.* per lb. as compared with 9'04*d.* per lb. in 1912.

#### Capital and Labour.

The number of persons employed in the industry in 1912 is returned at 547,545 permanently employed, and 95,590 temporarily employed. Compared with the returns of the previous year, there is an increase of 21,085 permanent employes and 8,088 in the number of temporary hands. The capital of joint stock companies engaged in the production of tea amounts to about Rs. 26'4 crores or over £17'5 millions, *viz.*,

Rs.

Companies registered in India .. 3,79,13,836  
Companies registered in the  
United Kingdom (£15,122,192) 22,68,32,886

Particulars are available concerning the position in 1912 of 90 companies registered in India, which have an aggregate paid-up capital of Rs. 282 lakhs. Of these companies, 80 companies declared dividends for 1911 amounting to 17'62 per cent on their aggregate capital of Rs. 260 lakhs and 16'5 per cent. on the total capital of Rs. 277 lakhs in that year. Seventy-six companies had, up to the time the official figures were issued, declared dividends for 1912 amounting to 13'2 per cent. on their aggregate capital of Rs. 212 lakhs. Similarly, the total dividends declared for

1912 on an average amount to 11'2 per cent. on the total capital of Rs. 282 lakhs in 1912. The value per Rs. 100 of joint stock capital, as calculated on the prices of the shares, of 84 companies quoted in the Calcutta market was Rs. 159 in March 1912 and of 87 companies was Rs. 144 in March 1913.

Similar particulars about 68 companies registered in the United Kingdom with sterling capital of £ 10'4 millions (Rs. 1,557 lakhs) are available and show that the total dividends declared in 1911 by 67 companies out of them with an aggregate capital of £10'3 millions (Rs. 1,550 lakhs) amounted to 10'65 per cent., which means 10'68 per cent. on the total capital of £ 10'3 millions (Rs. 1,546 lakhs) in that year. The dividends declared up to June 30, 1913, by 55 companies came to 4'3 per cent. on their aggregate capital of about £ 8'1 millions (or Rs. 1,29 lakhs).

#### Foreign Tea in India.

The imports of foreign tea into India in the year April-March 1912-13 were 8'89 million lbs. (2'08 million pounds less than in 1911-12). More than a third was re-exported as foreign tea, chiefly from Bombay to Persia, Turkey in Asia, Maskat, and the Bahrein Islands by sea, and by land to Afghanistan, leaving some 5'67 million lbs. for consumption in India. Part of this, no doubt, was used for blending with Indian teas, and the blend, when exported, would doubtless be treated as Indian produce in the customs declarations.

The necessity of protecting the vast forest areas in India and Burma was first recognised in the Madras Presidency nearly a century ago, when steps were taken to protect on a limited scale the more valuable areas in the Anamalis, while in December 1856 Doctor Cleghorn was appointed the first Conservator of Forests in that Presidency. It was not, however, until 1856 that Lord Dalhousie laid down a definite policy with the object of affording more widespread protection to the vast areas of valuable forest in British India. The action taken by the Supreme Government came none too soon, for already in many localities the wanton hacking by the local population and even more so by timber contractors, had reduced the forests to a state from which they could not be expected to recover for many years, even under the strictest protection.

## Recruitment of the Staff.

In order to introduce a system of conservative management, on scientific lines it was of first importance to collect a staff of trained foresters, and as no forest training college existed at that period in England, the Government of India, as a commencement, enlisted the services of three German Forest Officers. The first of these to come to India was the late Sir Detrich Brandis, K.C.I.E., F.R.S. and it was to his extraordinary energy and abilities that a sound foundation was originally laid to the scientific management of the State forests. Soon after his arrival in India, the staff was materially strengthened by the recruitment of officers from the Indian Army. In 1869 the first batch of technically-trained English forest officers joined the service, having received their training either in Germany or France, and this system of continental training remained in force until 1876, after which the training was carried on entirely at the National Forest school of Nancy. The first batch of Coopers Hill trained foresters arrived in India in 1887 and the last in 1907, after which date the training took place at Oxford University, and later also at the Universities of Cambridge, Edinburgh and Dublin. In this way the Government of India have been able to collect by degrees a highly trained staff of men to carry on the administration of their State forests. The total strength of the Imperial Establishment at the present time is 228, of whom 27 are administrative officers and 201 Executive officers, among the latter are included Instructors and Research Officers who are employed at the Forest Research Institute and College.

In order to keep pace with the recruitment of the superior staff, a Forest School was opened in 1878 at Dehra Dun for the training of Forest Rangers. Recently this School has been converted into a College and the instruction extended to include a course for training men for the Provincial Services. Besides the Forest College at Dehra two new Rangers' Schools have been established, one at Pynmuna in Burma and the other at Coimbatore in Madras. Besides this nearly every Province has established a local Forest School for the training of the lower subordinate establishment.

## Area of State Forests.

The forests belonging to the State covered in 1911-12, 249,575 square miles, or roughly one-fourth of the whole of India and Burma. Of this approximately 10,000 square miles

are Reserved Forests, 9,500 square miles Protected Forests and 140,000 square miles Un-classed forests, by far the greater portion of the latter class occurring in Burma. The distribution of these areas is by no means uniform, the majority being found in Burma, Assam, Northern Bengal and along the foot of and extending into the Himalayas from the Nepal frontier westward through the United Provinces and the Punjab. In the Gangetic valley, in the plains of the Punjab, in Sind and Rajputana few forests occur except along the rivers, nor does one come across large wooded tracts until one enters the Central Provinces and the Godavari catchment area. From there southward in the Satpuras and throughout the North and South Deccan there exist well distributed areas of forests, though generally not in large blocks, while on the Western Ghats, in the Nilgiris and Anamalis, are found some of the finest teak forests of India proper. The East Coast of India is fairly well stocked with forest growth, especially in the Godavari basin, to the west of Cuttack and Puri and again in the Sundarbans, while the Andaman Isles are densely wooded.

## Revenue, Expenditure and Outturn.

The gross Revenue from State forests in 1911-12 amounted to Rs. 28,016,125, while the expenditure stood at 16,305,693, giving a net revenue of Rs. 11,710,432. The total outturn of timber and fuel in that year amounted to 242 million cubic feet, out of which 6,832,800 cubic feet of fuel and 2,352,900 cubic feet of timber were given free to the local population. The number of bamboos removed came to nearly 215 million, valued at eight lakhs of rupees and the number of cattle grazed amounted to 1,51,19,047, while the total revenue derived from Minor Products was 99 lakhs of rupees.

From the above figures it will be readily understood that not only is the revenue realised by the State considerable but that the handling of such large amounts of Forest Produce requires a competent staff of officers.

## Management.

The system under which the State forests are managed varies in different Provinces. In all cases, however, the aim of the Forest Department has been to introduce Working Plans for their forests, based on European systems of management. The system most usually adopted in India, especially for working the valuable teak and sal forests, is the Selection System, in other words maintaining an equal distribution of all age classes throughout the forest. In a few cases such as in deciduous and other coniferous forests and also in a few instances in sal forests, the Uniform Method or a system by which trees of more or less uniform age are grouped together has been applied, and this method of mere intense management may come into more general use in the future, as a greater number of trained officers become available. In many cases, owing to the destruction of the forests in the past, it has only been possible to prescribe Improvement Felling, though in time a more regular system of working will be introduced. The forests which are destined to supply small building timber and fuel to the local population are generally worked by either the Coppice with Standard or Pure Coppice methods, according to the state and composition of the

forest, while certain areas have been put aside for the formation of Fuel and Fodder Reserves or as grazing areas.

#### Forest Surveys.

The preparations of maps for the State Forests is undertaken by the Great Trigonometrical Survey Department. The areas for which detailed surveys have been prepared was roughly 80,000 square miles in 1911-12, to which figure yearly additions are being made. As soon as possible after the compilation of detailed maps, Working Plans are prepared for the forest, and up to 1911-12 about 50,000 square miles of Forests have been dealt with.

#### Method of Extraction.

Once the forests have been organized and plans of working prepared by an officer put on special duty for the purpose, it remains for the executive officers to arrange for the exploitation of the trees, according to the provisions of the sanctioned plans. This work is carried out in various ways in different localities. Sometimes it is done departmentally, as for instance in certain divisions on the West Coast and also in three or four of the western Pegu Yoma divisions, in Burma. This system which had to be adopted by the Department when work was first commenced and contractors could not be obtained, has now generally been replaced by a system of giving leases to work the forests or by selling the annual coupes standing to contractors. In the case of the valuable teak forests of Burma the system of granting leases for a period of from 10 to 20 years has generally been adopted and has been found to work satisfactorily, the trees for felling being marked by the Forest Department. In other provinces this system has been adopted on a more restricted scale, and in India proper the custom of holding annual sales and selling the trees standing has been found more convenient and profitable. The right to collect Minor Produce is generally put up for auction, which gives the highest bidder the right to collect the produce from the forest for a given period, generally one year. In order to meet the requirements of the local population a system of issuing permits is in force, the permit being issued free to right or privilege holders and on payment of a low fee to other persons. This enables agriculturists to obtain their requirements as to fuel, building timber and grass etc., without delay and without having to pay enhanced rates to a middleman. The right to grazing is dealt with in the same way.

#### Important Timbers.

The forests of British India contain a vast number of trees and woody plants, in fact a far greater number than is generally realized by the public. For instance the number of tree species is about 2,500, while the number of woody shrubs and climbers is not far short of that total. Of all Indian species of timber teak stands first, both in quality and as to the amount annually exported from the State forests. The output of this timber from Burma only, in 1911-12, amounted to 252,700 tons, while the total output from British India is estimated at 325,000 tons. Sal comes next in importance and is obtained in the greatest quantities from the United Provinces and

Nepal, while a very considerable amount is also available from Bengal, the Central Provinces, Assam and the Feudatory States of Orissa. The output of sal in 1911-12, from Government Forests, amounts to 122,350 tons and from Native States and private land to 35,650 tons, nearly half of the total of which is converted into railway sleepers. Of other species of nearly equal importance is deodar, the timber of which is extensively used in construction and as railway sleepers; sandalwood, sissoo and blackwood, the last two timbers being highly prized for building purposes and furniture making; the sundri-wood of the Sundarbans and Bassein, used in boat and carriage building; Andaman and Burman Padauk, used for the construction of gun carriages, furniture and railway carriages; the Pyinkado of Burma, used in building and one of the first sleeper woods in the world; the Red Sandars of Madras, babul, the in or eng wood of Burma, all used for building and for a variety of other purposes and Khair from which "Cutch" is obtained. A great variety of other useful timbers could be mentioned of nearly equal importance to the above, which go to supply the requirements of the enormous population of the Indian Empire.

#### Minor Forest Products.

Turning now to Minor Forest Products, the most important come under the main heads, fibres, and flosses, grasses, distillation products, oil seeds, tann and dyes, gums and resins, rubber, drugs and spices, edible products, bamboos, canes, and animal and miscellaneous products. The number is very large, while some of them are of considerable economic importance, so much so that they realized over 99 lakhs of rupees in 1911-12. It is not possible to do more than to mention one or two of the most important of these commodities, as for instance myrabolams for tanning, of which 1,233,600 cwt. were exported from India last year. Cutch is of even greater importance, being produced chiefly in Burma and the United Provinces though also prepared on a more limited scale elsewhere; the total amount of Cutch exported from Burma during the year ending March 1912, amounting to 9½ million lbs. Another equally well known product is lac, produced chiefly in Sind and the Central Provinces which besides being used locally, is annually exported in the form of shellac, which in 1911-12 valued £1,342,694. Of other Minor Forest Products which deserve mention are rosha and lemon oils; gum kino, babul gum, gurjan oil, thitsi-lamar and rubber, which are classed as exuded products; sabal grass for paper making and Munj grass for fibre and thatting; mohwa seed yielding a valuable oil, santal and agar wood oil and the essential oils obtained from them; simul floss used for stuffing; pillows; kamella powder and lac dye used for dyeing; podophyllum resin, cassia bark, cardamoms, pepper and strychnine, come under the head of drugs and spices; and a variety of other products often of considerable local values.

From what has been said above it will be seen that the Minor Products obtained from the Indian forests play by no means a small part in the economy and commerce of the country.



## Mines and Minerals.

The feature which stands out most prominently in a survey of the mineral industries of India is the fact that until recent years little has been done to develop those minerals which are essential to modern metallurgical and chemical industries, while most striking progress has been made in opening out deposits from which products are obtained suitable for export, or for consumption in the country by what may conveniently be called direct processes. In this respect India of to-day stands in contrast to the India of a century ago. The European chemist armed with cheap supplies of sulphuric acid and alkali, and aided by low sea freights and increased facilities for internal distribution by the spreading network of railways has been enabled to stamp out, in all but remote localities, the once flourishing native manufactures of alum, the various alkaline compounds, blue vitriol, copperas, copper, lead, steel and iron, and seriously to curtail the export trade in nitre and borax. The reaction against that invasion is of recent date. The high quality of the native-made iron, the early anticipation of the processes now employed in Europe for the manufacture of high-class steels, and the artistic products in copper and brass gave the country a prominent position in the ancient metallurgical world, while as a chief source of nitre India held a position of peculiar political importance until, less than forty years ago, the chemical manufacturer of Europe found among his by-products, cheaper and more effective compounds for the manufacture of explosives.

With the spread of railways, the development of manufactures connected with jute, cotton and paper, and the gradually extended use of electricity the demand for metallurgical and chemical products in India has steadily grown. Before long the stage must be reached at which the variety and quantity of products required, but now imported, will satisfy the conditions necessary for the local production of those which can be economically manufactured only for the supply of groups of industries.

**Value of Output.**—The total value of minerals for which returns of production are available for the year 1912 was £9,321,486 being an increase of £1,340,318 on the previous year's output. The following are the more important of the minerals included in the above.

	1911	1912.
	£	£
Coal .. .. .	2,502,616	3,310,365
Gold .. .. .	2,238,143	2,271,806
Petroleum .. .. .	884,398	975,278
Manganese-ore .. .. .	648,801	884,404
Salt .. .. .	469,235	509,824
Mica .. .. .	188,642	284,290
Building materials and road metal .. .. .	246,446	270,980
Salt-petre .. .. .	220,268	217,035
Lead-ore and Lead .. .. .	181,980	153,069
Tungsten-ore .. .. .	99,989	115,200

### Coal.

Most of the coal raised in India comes from the Bengal—Gondwana coal-fields. Outside Bengal the most important mines are those at Singareni in Hyderabad, but there are a number of smaller mines which have been worked at one time or another. With the exception of Hyderabad (Singareni) and the North-West Frontier Province, the production of which latter is negligible, there was an increase in 1912 in the outturn of every province. This increase was of course greatest in Bengal, Behar and Orissa, that is to say, in the Raniganj and Jherria fields. Of the former the output increased from 4,311,956 tons to 4,944,268 tons and of the latter from 6,373,728 to 7,653,452 tons. Of the other Gondwana fields the output of Bellarpur in the Central Province, decreased by about 10,000 tons and that of Singareni by over 20,000 tons. All the other fields show increases, the outturn of the new Hingir field in Sambalpur having risen from 5,669 tons to 21,314 tons.

Provincial production of coal during the years 1911 and 1912.

Province.	1911.	1912.
	Tons.	Tons.
Assam .. .. .	204,893	297,160
Baluchistan .. .. .	45,707	54,386
Bengal .. .. .	11,468,904	4,306,129
Behar and Orissa .. .. .	.. .. .	9,126,385
Central India .. .. .	143,558	149,921
Central Provinces .. .. .	211,610	233,996
Hyderabad .. .. .	505,380	481,652
North-West Frontier Province .. .. .	140	50
Punjab .. .. .	30,575	38,409
Rajputana (Bikaner), .. .. .	14,761	18,251
Total .. .. .	12,715,534	14,706,330

**Consumption of Coal.**—There was only a slight increase in the amount of coal exported in 1912, so most of the increase must have been absorbed in the country. For this increased consumption, the Indian railways account for about one-fifth, the total quantity of coal burned by them during the year being 4,590,818 tons as against 4,223,020 tons in 1911. There consequently remains a balance of increase of over 1½ million tons, most of which must have been employed in other industries. This is an indication of remarkably rapid industrial expansion. Exports during 1912 amounted to 898,739 tons, valued at £601,818. While the increase in the exports of coal was small the rise in imports was very considerable, namely, from 340,106 tons, including coke and patent fuel, in 1911, to 611,732 tons, or nearly double the amount, in the year under review. This is attributed to the increased use by steamships of coal other than Indian. There are marked increases in the amount of Natagand Japanese coal imported, a considerable increase, amounting to more than 700 per cent. in the imports of Aus-

tralian coal, and a decrease in the imports of coal from the United Kingdom.

**Prices of Coal.**—During 1912 there was a considerable rise in pit's mouth value, from Rs. 2-11-4 to Rs. 3-6-0 per ton. With the exception of those of Baluchistan and Bengal most

of the fields show a slight rise in pit's mouth value. In Baluchistan, however, the value fell from Rs. 10-11-1 in the previous year to Rs. 9-0-7 in 1912, whereas in the Jhera field the pit's mouth value rose to Rs. 2-14-1 and in the Raiganj field to Rs. 3-10-0.

### Manganese Ore.

This industry commenced some twenty years ago by quarrying the deposits of the Vizagapatam district, and from an output of 674 tons in 1892, the production rose rapidly to 92,008 tons in 1900 when the richer deposits in the Central Provinces were also attacked, and are now yielding a larger quantity of ore than the Vizagapatam mines. Since 1904, when the total output was 150,190 tons, the progress of the industry has been remarkable owing to the high prices prevailing. In 1905 production reached 247,127 tons; the following year it was more than doubled (571,495 tons), and in 1907 the figures again rose to 902,291 tons. In 1909, on account of the fall in prices the output contracted to 612,875 tons, but it almost regained its former position in 1910 when the production rose to 800,907 tons. In 1911 it fell to 670,290 tons, and in 1912 to 637,444 tons. The ore raised in the Central Provinces is of a very high grade, ranging from 50 to 54 per cent. of the metal, and in consequence of its high quality is able to pay the heavy tax of freight over 500 miles of railway, besides the shipment charges to Europe and America, for the whole of the ore is exported to be used principally in steel manufacture in the United Kingdom, Germany, and the United States.

The fall in prices in the latter part of 1907 produced by 1909 an almost complete cessation of mining for lower grades of ore at mines far removed from railways. Owing to an excess of production over exports the stocks on the mines at the end of 1908 stood at the high total of nearly 300,000 tons. The rise in the price of ore during 1910 resulted in a considerable increase in the total production, namely from 642,675 tons in 1909 to 800,907 tons in 1910, but with a fall in price in 1911 the output also fell. In 1912 there was a rise of over 36 per cent. in the value of the output. At the same time there was a slight fall in the amount produced. The rise in the value of the total output is therefore due to improved prices and not to increased output. The average value of first grade ore was 11'1d. and of second grade ore 10'8d., as against 9'5d. and 9'3d. in 1911.

Quantity and value of Manganese-ore produced in India during 1911 and 1912.

	1911.		1912.	
	Quantity.	Value f. o. b. at Indian ports.	Quantity.	Value f. o. b. at Indian ports.
	Tons.	£	Tons.	£
<i>Bihar and Orissa—</i>				
Gangpur ..	25,152	25,257	27,173	37,470
<i>Bombay—</i>				
Panch Mahals ..	45,330	45,519	43,538	60,046
<i>Central India—</i>				
Jhabua ..	7,319	6,068	5,052	6,088
<i>Central Provinces—</i>				
Balaghat ..	144,642	147,053	135,435	199,202
Bhandara ..	119,606	121,600	115,365	169,683
Chhindwara ..	1,540	1,566	16,517	24,294
Nagpur ..	179,263	182,500	147,225	216,544
<i>Madras—</i>				
Sandur ..	66,950	53,002	62,488	71,080
Vizagapatam ..	58,915	46,641	54,758	62,287
<i>Mysore</i>	21,573	19,595	29,293	37,104
<b>Total</b>	<b>670,290</b>	<b>648,801</b>	<b>637,444</b>	<b>884,404</b>

**Gold.**

The greater part of the total output of gold in India is derived from the Kolar gold field in Mysore. During the last decade the production of this mine reached its highest point in 1905 when 616,758 ounces were raised. In 1906 the quantity won was 565, 208 ounces and this figure fell to 535,085 ounces in 1907. The figures for the later years reveal a small improvement. The Nizam's mine at Hutti in Hyderabad comes next, but at a respectable distance, to the Kolar gold field. This mine was opened in 1903. The only other mines from which gold was raised were those in the Dharwar district of Bombay and the Anantapur district of Madras. The Dharwar mines gave an output of 2,993 ounces in 1911, but work there ceased in 1912. The Anantapur mines gave their first output of gold during the year 1910, the amount being 2,532 ounces, valued at Rs. 1,51,800. Gold mining was carried on in the North Arcot district of Madras from 1893 till 1900, the highest yield (2,854 ounces) being obtained in the year 1898. The Kyaukpazat mine in Upper Burma was worked until 1903, when the pay chute was lost and the mine closed down. In 1902 dredging operations were started on the Irrawaddy river near Myitkyina, and 216 ounces of gold were obtained in 1904; the amount steadily increased from year to year and reached 8,445 ounces in 1909, but fell to 5,972 ounces in 1910 increasing again to 6,390 ounces in 1911. The small quantity of gold produced in the Punjab, the Central Provinces, and the United Provinces is obtained by washing. Gold washing is carried on in a great many districts in India, but there is no complete record of the amount obtained in this way. The average earnings of the workers are very small, and the gold thus won is used locally for making jewellery.

*Gold Produced in India in 1912.*

	Quantity.	Value.	Labour.
	Oz.	£	
<b>Burma—</b>			
Myitkyina .. .. .	4,991.77	18,931	154
Katha and Pakokku .. .. .	15.16	75	4
Upper Chindwin .. .. .	58.22	331	50
<b>Hyderabad .. .. .</b>	<b>16,993</b>	<b>64,980</b>	<b>1,516</b>
<b>Mysore .. .. .</b>	<b>561,065</b>	<b>2,158,362</b>	<b>26,203</b>
<b>Madras .. .. .</b>	<b>7,269</b>	<b>28,499</b>	<b>1,756</b>
<b>Punjab .. .. .</b>	<b>147.52</b>	<b>683</b>	<b>280</b>
<b>United Provinces .. .. .</b>	<b>12.25</b>	<b>45</b>	<b>90</b>
<b>Total .. .. .</b>	<b>590,554.92</b>	<b>2,271,806</b>	<b>30,602</b>

**Petroleum.**

Petroleum is found in India in two distinct areas—one on the east, which includes Assam, Burma, and the islands off the Arakan coast. This belt extends to the productive oil fields of Sumatra, Java, and Borneo. The other area is on the west, and includes the Punjab and Baluchistan, the same belt of oil-bearing rocks being continued beyond the borders of British India to Persia. Of these two the eastern area is by far the most important, and the most successful oil fields are found in the Irrawaddy valley. Yenangyang is the oldest and most developed of these fields. Native wells have been at work here for over 100 years, and in 1886, prior to the annexation of Upper Burma, the output is estimated to have averaged over 2 million gallons a year. Drilling was begun in 1887. The Yenangyang field yielded a very small supply of petroleum before 1891, in which year drilling was started by the Burma Oil Company. Singu now holds the second place among the oil fields of India. Petroleum was struck at the end of 1901, and in 1903, 5 million gallons were obtained. In 1907 and 1908 the production of this field was 43 million gallons, and after a fall to 31½ million gallons in 1910 it rose to 56½ million gallons in 1912. Several of the islands off the Arakan coast are known to contain oil deposits, but their value is uncertain. About 20,000 gallons were obtained from the Eastern Jarong Island near Akyab, and about 37,000 gallons from Ranni Island in the Kyaukpyn district during 1911. Oil was struck at Minbu in 1910, the production for that year being 18,320 gallons, which increased to nearly 4 million gallons in 1912. The existence of oil in Assam has been known for many years and an oil spring was struck near Makum in 1867. Nothing more, however, was done until 1883, and from that year up till 1902 progress was slow. Since that year the annual production has been between 2½ and 4 million gallons.

On the west, oil springs have been known for many years to exist in the Rawalpindi and other districts in the Punjab. In Baluchistan, geological conditions are adverse, and though some small oil springs have been discovered, attempts to develop them have not hitherto been successful.

Quantity and Value of Petroleum produced in India during 1911 and 1912.

	1911.		1912.	
	Quantity.	Value.	Quantity.	Value.
	Gallons.	£	Gallons.	£
<b>Burma—</b>				
Akyab .. .. .	19,630	327	15,026	300
Kyaukpny .. .. .	36,970	913	41,304	913
Magwe (Yenangyaung) .. .. .	166,494,349	640,856	179,802,842	692,082
Myingyan (Singu) .. .. .	50,564,765	210,777	56,645,200	234,682
Pakokku (Yenangyat) .. .. .	4,476,074	17,103	4,880,422	18,551
Minbu .. .. .	632,458	2,635	3,896,365	16,235
Thayetmyo .. .. .	1,315	12	53,450	114
<b>Assam—</b>				
Digboi (Lakhimpur) .. .. .	3,565,163	11,760	3,717,359	12,361
<b>Punjab—</b>				
Mianwali .. .. .	1,400	15	950	10
<b>Total ..</b>	<b>225,792,094</b>	<b>884,398</b>	<b>249,083,518</b>	<b>975,278</b>

There was also a reduction in the amount of foreign kerosene imported during the year. This fell from over 75 million gallons to a little under sixty-two and a half million gallons in 1912.

The consumption of kerosene in India (excluding Burma) is rapidly increasing and has risen from about 79 million gallons in 1900-01 to 168 million gallons in 1911-12. The enormous increase in the output of the Burma oil fields has reversed the position held by foreign and Indian oil in the market. In 1908-09, however, the proportion of foreign oil consumed was a little higher than that of Burma oil as a result of a contraction in her shipments concurrently with a large increase in imports from foreign countries, but from 1909-10 Burma oil has regained its position. The imports of kerosene in oil in 1912 were as follows:—

	Gallons.
Burma .. .. .	12,510,024
Roumania .. .. .	2,693,800
Russia .. .. .	7,535,184
Straits Settlements .. .. .	3,285,841
Sumatra .. .. .	612,474
United States of America .. .. .	35,684,624
Other Countries .. .. .	688
<b>Total ..</b>	<b>62,352,653</b>

**Amber, Graphite and Mica.**—Amber is found in very small quantities in Burma the output for 1912 being 27 cwt. valued at £179. Graphite is found in small quantities in various places but no progress has been made in mining except in Travancore, and there, owing to the difficulties of working, the mine has been shut down. The output from it was 39,425 in 1911. India has for many years been the leading producer of mica, turning out more than half of the world's supply. In 1912 the output was 43,000 cwt., and the value of the amount exported £234,000.

**Tin, Copper, Silver, Lead and Antimony.**—The only persistent attempt to mine tin is in Burma. The output was for sometime insignificant but rose in 1912 to 4,014 cwt. of block tin and 3,493 cwt. of tin ore, valued at £ 36,190 and £14,754 respectively. Copper is found in Southern India, in Rajputana, and at various places along the outer Himalayas, but the ore is smelted for the metal alone, no attempt being made to utilize the by-products. An attempt is being made to work lodes near Pangyang, in the Northern Shan States, for the production of silver and lead, and in Southern Burma for antimony.

**Gem Stones.**—The only precious and semi-precious stones at present mined in India are the diamond, ruby, sapphire, spinel, tourmaline, garnet, rock-crystal, agate, carnelian, jadeite and amber. Amber has already been referred to; of the rest only the ruby and jadeite attain any considerable value in production and the export of the latter has declined owing to the disturbances in China, which is the chief purchaser of Burmese jadeite. The output of diamonds is comparatively unimportant being valued at £411 in 1912. The ruby-mining industry of Burma has lately undergone a favourable change. The average annual value of the stones produced is but about £59,000 but in 1912 the total value of rubies, sapphires and spinels amounted to £69,547.

**Iron Ore.**—The output of iron-ore rose from the estimated value of about £10,000 in 1910 to £34,496 in 1911 and £47,044 in 1912. This increase was marked both in Orissa and in Singhbhum, and furnishes evidence of the activity of the Tata and the Bengal Iron and Steel Companies.

## Inspection of Mines

During the year 1912 the average number of persons working in and about the mines regulated by the Indian Mines Act was 164,302, of whom 103,980 worked underground and 60,322 on the surface. One hundred and one



thousand nine hundred and seventy-one of the persons were adult males; 56,507 were adult females and 5,824 children under 12 years of age.

**Accidents.**—During the year 1912, at mines regulated by the Indian Mines Act, 1901, there were 133 fatal accidents, being a decrease of 4 as compared with the number in 1911, and an increase of 4 as compared with the average number of last four years. These accidents involved the loss of 185 lives. This is an increase of 11 upon the number of deaths in 1911. In that year, however, only two accidents caused more than 3 deaths (14 and 4), whereas in 1912 one accident caused 23 deaths and two caused 4 deaths. Moreover, 7 accidents, involving 13 deaths, occurred in wolfram mines, which had not been previously brought under the scope of the Act. Of these 133 accidents, the Chief Inspector of Mines regards (a) 49 as being due to misadventure, (b) 37 to

the fault of the deceased, (c) 9 to the fault of fellow workmen, (d) 7 to the fault of subordinate officials, and (e) 31 to the fault of the management. The death rate per thousand employed was 1·12, that of the preceding four years being 1·18. At coal mines only these figures were 1·29 and 1·34, at mines other than coal ·65 and ·74. At coal mines in England, during the ten years ending with and including 1911, the deathrate per thousand employe varied from 1·19 (lowest) to 1·69 (highest). The deathrate per million tons raised at coal mines only was 11·17 that of the preceding four years being 12·62. At coal mines in England during the ten years ending with and including 1911 the death rate per million tons raised varied from 4·29 (lowest) to 6·37 (highest).

*Chief Inspector of Mines in India, G. F. Adams, M. Inst. C. E.*

## Industrial Arts.

"The Arts of India," wrote Sir George Birdwood in the first lines of his book on the industrial arts of India which has now become a classic, "are the illustration of the religious life of the Hindus, as that life was already organised in full perfection under the code of Manu, B. C. 900-300." Whether that statement be accepted in its entirety or not, some knowledge of the religion of the Hindus is most essential to an understanding of their arts. That subject is dealt with elsewhere in this book and so is the subject of caste, of which a knowledge is equally important in this connexion. But, by way of preface to a brief outline of some of the more important art industries of the country, it may be well to state what is the basis of practically the whole industrial system of India. The child learns his hereditary craft from his father or is apprenticed to a *mistri*, or master-craftsman, who is often a relative of the pupil. There is no regular fee, but a small present is often paid to the owner or foreman of the shop, and in some trades a religious ceremony may take place at the time of apprenticeship. The child begins his work at a very early age; at first he is expected to undertake the menial duties of the shop and is put to cleaning the tools; later he begins to perform the simplest operations of the trade. There is little definite instruction, but the boy gradually acquires skill by handling the tools and watching the workmen at their task. As soon as he has made a little progress, the apprentice is granted a small wage which is gradually increased as he becomes more useful; and when his training is finished, he either goes out into the world or secures a place on the permanent roll of his master's shop. To the poor artisan the arrangement has this great advantage, that at a very early age the child earns his livelihood and ceases to be a burden on his parents. In former days the system answered well enough for the rude village industries which satisfied the needs of the bulk of the population, and it also succeeded in maintaining a class of workmen who dealt in metals and textile fabrics with such sense of form and colour that their work has challenged comparison with the most artistic products of the West. It has not, however, enabled the Indian artisans to keep abreast with modern industrial development. Imported articles have to a considerable extent supplanted the products of home industry, the quality of Indian work has in many cases deteriorated, and the workman has neither taken due advantage of the wide openings afforded to him by advancing civilisation and trade, nor adhered rigidly to old methods and traditions. The efforts made to assist him have not as yet been attended with a great measure of success, but the potentialities of the Schools of Art and Technical Institutions are only beginning to be appreciated.

### Wood-carving.

Indian wood-work, which must come first in importance in the art products of the country, shows great diversity, and many points of interest, and the wood-carvers of the country, have gained a well-deserved reputation out-

side India. The more noteworthy crafts include carving as applied to architecture, furniture, and cabinet work inlaying with other woods or metals, veneering, and lattice-work. The art and industrial schools of Calcutta, Madras, Bombay and Lahore have given much attention to developing these crafts on indigenous lines, with the result that deterioration has to a large extent been prevented and a superior class of carpenters, dispersed over the country. On a smaller scale, objects are carved in sandal-wood with a minuteness and intricacy of elaboration only equalled by the results attained in ivory. As to style, there is a great variety of types throughout the country, the two chief influences on the art conception being religion and the nature of the wood used. Mahomedan and Sikh work—for example, is largely constructed on a geometric basis, though in the modern Sikh work—as in the Hindu—grotesque animal forms or mythological subjects are freely introduced. The woods chiefly used for ornamental work are teak, *shisham*, deodar, sandal-wood, ebony, walnut, *tun*, *nim*, Madras red-wood (sometimes called black-wood), *dudhi* (white-wood), red cedar, *sal*, *bubul*, and others of less importance. Deep under-cutting and sculpture are possible with teak, red-wood, and walnut; whereas *shisham* and deodar can be used only for low relief work. In recent years a great demand for cheap and inferior carving—on tables and other articles alien to the Indian mind—has sprung up in Europe and America and has been met by the export of vast quantities of poor work, for which the soft woods only are used while bone takes the place of ivory in inlaying. "In these abominations," writes Sir George Watt in the catalogue of the 1903 Exhibition at Delhi, "it is thought sufficient proof of an Indian character to introduce some portion of a mosque or temple, and that being done all attention to such details as suitability of design or nature of ornamentation can be disregarded."

### Metal Work.

The purely indigenous or village metal manufactures are perhaps, after those connected with wood, the most important of all the art industries of India. Most of the household utensils are made of metal, which thus to a large extent take the place of the porcelain and glass of Europe. Brass is most frequently employed by Hindus and copper by Mahomedans, the copper vessels being generally lined for safety. Every large village has its copper and ironsmiths and also its jeweller, and in some instances these local industries attain considerable magnitude, as is the case with the manufacture of copper and brass vessels at Srinagar, Benares and other towns. The making of ornamental bowls, vases, trays, and other European articles constitutes an important industry in many places, and a variety of processes is of course employed such as enamelling, damascening, and colouring either with lac or paint. The provinces of India have each two or three centres noted for their copper or brass ware, and there are as many different art conceptions as centres. Some of the style is well known all over the world, such as the Benares

style of punched brass, which is as a rule bad in design and execution, and the engraved or repoussé work in polished brass that comes in large quantities from Jaipur. Better than either of these are the perforated and repoussé copper work of Lucknow, the best products of Bombay, Poona, and some of the southern India centres, and the gongs and idols made in Burma. Ordinary domestic utensils, which are free from ornamentation so that they can be readily secured, and the more elaborate implements used for religious ceremonials are among the most and beautiful interesting metal wares in India; but they vary in style and finish throughout the country. Sir George Watt writes:—

"The copper or brass vessel of most general use by the Hindus is the *loti*, a globular melon-shaped vessel flattened from the top and having an elegantly reflexed rim by which it is carried suspended between the fingers and thumb. In shape this doubtless originated from the partially expanded flowers of the sacred lotus, its name thus coming from the same root as the Latin *lotus*, "washed," and the English lotion "a wash." With the Mahomedans the *loti* (or *tanti*) has been given a spout because the Quran ordains that a man shall perform his ablutions in running water, hence the water when poured out of the *tanti* is considered to be running water. It is carried by holding the rim at one side and it thus dangles instead of being (as with the Hindus) suspended from the middle of the hand. The shapes of the *loti* and *tanti* and their respective uses have given birth to two widely different forms of both domestic and decorative metal work characteristic of India. For example, the spout and the use of copper, more especially when tinned, has originated a whole range of forms and designs not only quite unknown to the Hindus but next to impossible with the materials permitted by their religion." It is scarcely possible any longer to divide the gold and silver plate work of India into four or five well defined classes distinguished by the style of ornamentation, as the workers in these metals have been quick to adopt a variety of European models. In Madras mythological medallions, in imitation of the encrusted style of Southern India art, still form the characteristic feature of much of the silver work. In Bombay two distinctive forms survive, the Poona and Kutch: of these the former is a deep form of repoussé, the silver usually being oxidised, the latter has a floral design of European origin in shallow repoussé. Rangoon work is generally known by the frosted surface of the silver and Mouhchin work by the silver being either polished or burnished. But in almost every case the design of one province is copied in another, and the best forms of ornamentation, such as the shawl pattern of Kashmir, have fallen into disuse either because of the labour involved in their production or because the smiths have found by experience that it is just as easy to sell inferior work.

Great varieties of form and style are to be seen in the arms and jewellery made in India. Sir George Birdwood in his "Industrial arts of India" says that "the forms of Indian jewelry as well as of gold and silver plate, and the chasings and embossments decorating

them, have come down in an unbroken tradition from the Itanayana and Mahabharata." The old types survive side by side with the copies of articles imported from the Rue de la Paix, and in any Indian jeweller's shop a bewildering mixture of the archaic and the modern is to be seen.

### Shawl and Carpet Weaving.

It is only in Northern India (more especially in Kashmir) that the spinning and weaving of wool extends to the production of highly-finished and artistic goods. Scattered here and there all over the country are hand-loom factories where coarse blankets, carpets, and other fabrics are produced. This indigenous wool industry is most important in the Punjab. The great centre of shawl production is Kashmir; the industry has also been carried on for many years in parts of the Punjab, where it was introduced by colonies of Kashmir weavers. France was for many years the chief foreign market for Kashmir shawls, and the trade, which was damaged also by the competition of cheap imitations produced at Paisley, never recovered from the effects of the Franco-German War. The bulk of the Kashmir shawl-weavers became carpet-weavers or agriculturists. The latest report from the Punjab regards the case of the genuine shawl industry as "almost hopeless." Carpet-weaving is carried on in various parts of the country. It is one of the many industries which is said to have been ruined by modern civilisation, and in so far as many carpet factories in India are turning out an inferior article, according to designs furnished by dealers in Europe, this is correct. But it is wrong to ascribe the cheapening of the caste weaver's product and his increased output to underselling by those jails in which the weaving of carpets has been introduced as an occupation for prisoners. On the other hand the jails, and especially that at Yerrowda, near Poona, have set a high standard by conserving old designs, by using good material, and by avoiding the use of aniline dyes. Since the London Exhibition of 1851 a considerable export trade in Indian pile carpets has been created. Amritsar, which caters for the American market in particular, is the most important carpet-weaving centre in India, but there are factories in many other places in Northern India, Rajputana, Central India and the United Provinces. In the lower provinces the industry hardly exists. Cotton and woollen carpets in other than pile stitch are made all over India. They are known as *dug* (a rug) and *shatranji* (a carpet) and are made in great variety. The poorer classes of Mahomedans generally use the cotton manufactures as praying carpets.

### Embroidery.

This is one of the most important of the art industries of India attaining its highest development in Northern India. The stitches employed in the various kinds of work are numerous, but all have this in common that they are formed by the needle being pulled away from and not drawn towards the worker. Mrs. J. A. Steel has written a description of the Punjab darn stitch, known as *pukhari*, but most of the varieties still await their historian. Darn stitch is chiefly used

on coarse cotton and chain stitch on silk or woollen fabrics, the former covering the textile the latter ornamenting parts of it. European demands have led to the production of large quantities of silk embroidery, in which coloured silks and gold and silver wire are employed, for curtains, table cloths and so on. Another common form of embroidery is what is called *chikan* work on some white-washing material such as calico or muslin; in this the most usual form of stitch is the satin stitch combined with a form of button-holing. The manufacture of lace and knitting have been introduced into India by missionaries. "Laid" embroidery with gold and silver wire (called *karchob* work because it is done on a frame) is common throughout the country in different forms. The wires are drawn in a number of centres, particularly in Lahore, Delhi, Agra, and Benares; the details of wire drawing and the form of stitch, together with the combination with precious stones and silk, make a great number of classifications of this work possible. A rough division between the two forms is that the massive kind is called *zardozi* and the light and graceful *kamdani*.

#### Ivory.

The carving and inlaying of ivory are still, though perhaps in diminished importance, arts much practised in India. The best material used is African ivory, which is whiter and of closer grain than the Indian, but Sir George Watt has pointed out that the "fish

tooth" ivory, or Mammoth ivory of Siberia, is also used by Indian workers. The centres of the craft are Delhi, Murshidabad in Bengal, Mysore, Travancore, and Moulmein. A curious fact about this industry is that, though carving is generally an hereditary occupation, there is no special caste identified with the craft like that of the silver smiths, and this is held to show that the industry as it now exists is of comparatively modern origin. Its development in recent times is due to the desire of sightseers in India to have "something Indian" to take away with them in an easily portable form. But some of the best work is still of great beauty and fine workmanship. The carving of horns and shells may possibly be counted as variations of this art.

#### Statuary.

Part of that division of handicrafts which is vaguely comotted under the term "fine arts" is the subject of an article elsewhere in this book. Apart from painting, it is not a very considerable division. Statuary, except the wide-spread production of statuettes (in stone, wood, or cast metal) of mythological subjects, is little practised. Various brass workers are expert in reproducing in miniature scenes of Indian life and animals of the country, and at Lucknow some realistic terra cotta statuettes are produced. Wherever wood-carving is practised, and particularly in Burma, statuary in that material is turned out and is used chiefly for decorative purposes,

## Fisheries.

The fisheries in Indian waters are unorganised in the modern sense of the term. Vast numbers of the coastal population are through natural circumstances engaged in fishing, but in a great proportion of cases this means of livelihood shares their time with agriculture. The Bengal Government took the important step, a few years ago, of initiating deep sea fishing, by introducing a steam trawler. The undertaking did not live to see commercial development on a large scale. Special measures have also been taken by the Madras Government with more or less success, there being in this province a Fishery Department of Government under an Honorary Director. The inland fisheries where there are large rivers or tanks are often important in many parts of India.

### Bengal.

The importance of the Bengal fisheries may be gauged from the fact that 1·6 per cent of the population is engaged in catching, curing, and selling fish, a percentage which rises to 2·6 in the Presidency, Rajshahi and Dacca Divisions; moreover, large numbers of cultivators are returned as fishermen also. The waters of the Bay, the rivers, and swamps swarm with fish, and every ditch and puddle furnishes small fry to eke out the frugal diet of the people. The best salt-water fish are the bekti, tapti, or mango-fish, mullet, pomfret, and sole. Inland the hilsa (*Clupea hilsa*) is found in shoals in the Ganges, while the rohu (*Labeo rohita*) and the katal (*Catla bichanani*) abound everywhere, as do also innumerable other varieties much esteemed by the Bengalis; prawns and crabs are caught in myriads. The mahseer is found in the higher reaches of the rivers which debouch from the Himalayas, and in some of the rivers of the Chota Nagpur plateau.

The Bengali is a clever fisherman. In the Bay of Bengal he practises deep-sea fishing, drying his catch ashore on stakes driven into some sandy beach. The larger rivers are fished from a sailing boat, and the smaller streams are fished from weirs. The tanks and ditches are periodically dragged, the fish at other times being all gird or caught in a cast-net. Every streamlet is studded with hundreds of wicker fish-traps, while prawn cages are ubiquitous. The wonder is that any living fish escapes, so persistent and remorseless is the hunt for the funny tribe. Every other interest is subordinated to its pursuit, and not only is navigation impeded, but the drainage of the country is blocked by the obstruction of every channel and outlet.

The right of fishery in all but the largest rivers has generally been alienated by Government to private persons, having been included in the "assets" on which the permanent settlement of estates was based, but in some cases the fishery itself is a separate "estate."

In tanks the right of fishing vests in the owner or occupant; in the Bay and large rivers fishing is free to all.

Altogether 644,000 persons in Bengal subsist by fishing, or double the number subsisting by pasture. Nor is this to be wondered at, considering the nature of the country and the

resources, even though imperfectly developed of its rivers, its estuaries and the sea board. In addition, moreover, to those actively engaged in fishing, there are 3,24,000 maintained by the sale of fish, so that the total number supported by catching and selling fish is very little under 1 million, or 2 per cent of the total population. Fishing is in Bengal not considered an honourable reputation, and the ambition of fishing castes is to attain greater respectability by becoming cultivators. As it is, one in every twelve of those whose principal occupation is fishing also cultivates some land in Bengal, and one in six in Bihar and Orissa.

### Burma.

The fisheries of Burma are important financially and otherwise. From time immemorial the exclusive right of fishing in certain classes of inland waters has belonged to the Government, and this right has been perpetuated in various fishery enactments, the latest of which is the Burma Fisheries Act of 1905. Fishing is also carried on along the coast, but the sea fisheries absorb but a small portion of industry. Most of the fishermen labour in the streams and pools, which abound particularly in the delta Districts. The right to work these fisheries, mentioned in the enactments alluded to above, is usually sold at auction, and productive inland waters of this kind often fetch very considerable sums. River fishing is largely carried on by means of nets, and generally yields revenue in the shape of licence fees for each net or other fishing implement used. Here and there along the coast are turtle banks which yield a profit to Government. In the extreme south the waters of the Mergui Archipelago afford a rich harvest of fish and prawns, mother-of-pearl shells and their substitutes, green snails and trochus, shark-fins, fish-maws, and beche-de-mer. Pearling with diving apparatus was introduced by Australians with Filipino and Japanese divers in 1893. They worked mainly for the shell, it being impossible for them to keep an effective check on the divers as regards the pearls. After about five years, when the yield of shell had decreased, they all left. The industry was then carried on by the Burmese.

### Bombay.

The Bombay sea fisheries are important and give employment to numerous castes, chief of which are the Kolls. Pomfret, sole, stone, and lady-fish are sold fresh, while others, such as the bombil, are salted and dried. Large quantities of small fry are sold as manure. The palla, found in the Indus, and the maral and mahseer are the principal fresh-water fish.

Sea-fishing is carried on by the Muhana tribe of Musalmans, who reside for the most part in hamlets near Karaachi. The principal fish caught on the coast are sharks, rays, and skates. The pearl oyster is found at several places, and the Mers conducted pearl operations on their own account. Under British rule, the right has been let for a small sum, but the pearls are very inferior in size and

quality, so that the industry has greatly declined during the last thirty years. At present practically no peaw fishing is carried on. Considerable fisheries also exist in the river Indus, chiefly for the fish known as palla, which are annually leased out by Government for about Rs. 20,000.

But for a province with such a length of sea board and with the estuary of the Indus within its borders the fishing population is singularly small. The fishing boats and appliances generally are very small and the fishermen do not go out in rough weather. The best fishing season is the cold weather months of December, January and February, and it is probable that with such a very brief season the harvest of the sea is not sufficient to support a larger population. The fishing castes frequently desert their caste occupation for others, according to the 1911 census report. When the two-

groups, fishermen and fish dealers, are amalgamated there is a decrease of 9,000 in the aggregate, which can only be explained by their deserting their ancestral occupation.

### Madras.

The Madras irrigation tanks usually contain coarse fish, the right of netting which is disposed of annually. The sea-fisheries along the coast employ thousands of persons, and the salting of the catches is a very considerable industry. The development of the fisheries of the Presidency is now under investigation by Government. Fish-curing is carried on in special yards under Government supervision, and is an important industry. In 1903-4 about 14,000 tons of fish were brought to the yards on the east coast and 30,000 tons to those on the west coast.

## Weights and Measures.

Indian weights and measures have never been settled upon an organised basis suitable for the widespread fluidity of commerce and trade characteristic of the modern age. They vary from town to town and village to village in a way that could only work satisfactorily so long as the dealings of towns and villages were self-contained and before roads and railways opened up trade between one and the other. It is pointed out that in England a hoghead of wine contains 63 gallons and a hoghead of beer only 54 gallons; that a bushel of corn weighs 46lbs. in Sunderland and 240lbs. in Cornwall; that the English stone weight represents 14lbs. in popular estimation, but only 5lbs., if we are weighing glass, and eight for meat, but 6 lbs. for cheese. Similar Universities are multiplied in India by at least as many times as India is bigger than England. If we take, for instance, the maund 4 denomination of weight common all over India, we shall find that in a given city there are nearly as many maunds as there are articles to weight. If we consider the maund as between district and district the state of affairs is worse. Thus in the United Provinces alone, the maund of sugar weighs 48 seers in Cawnpore, 40 in Muttra, 72½ in Gorakhpur, 40 in Agra, 50 in Moradabad, 4½ in Saharanpur, 50 in Bareilly, 46 in Fyzabad, 48½ in Shahjahanpur, 51 in Gossalgunge. The maund varies throughout all India from the Bengal or railway maund of 82·27lbs. to the Factory maund of 74lbs. 10oz. 11drs., the Bombay maund of 28lbs., which apparently answers to the Forest Department maund in use at the Fuel Depot, and the Madras maund, which some authorities estimate at 25lbs. and others at 21lbs. and so on.

**Committees of Inquiry.**—These are merely typical instances which are multiplied indefinitely. There are variations of every detail of weights and measures in every part of India. The losses to trade arising from the confusion and the trouble which this state of things causes are heavy. Municipal and commercial bodies are continually returning to the problem with a view to devising a practical scheme of reform. The Supreme and Provincial Governments have made various attempts during 40 years past to solve the problem of universal units of weights and measures and commerce and trade have nagitated about the question for the past century. The Indian railways and Government departments adopted a standard tola (180 grains), seer (80 tolas) and maund (10 seers) and it was hoped that this would act as a successful "lead" which would gradually be followed by trade throughout the empire, but the expectation has not been realised.

The Government of India considered the whole question in consultation with the provincial Governments in 1890-1894 and various special steps have at different times been taken in different parts of India. The Government of Bombay appointed a committee in 1911 to make proposals for reform for the Bombay Presidency. Their final report has not been published, but they presented in 1912 an ad interim report which has been

issued for public discussion. In brief, it points out the practical impossibility of proceeding by compulsory measures affecting the whole of India. The Committee stated that over the greater part of the Bombay Presidency a standard of weights and measures would be heartily welcomed by the people. They thought that legislation compulsorily applied over large areas subject to many diverse conditions of trade and social life would not result in bringing about the desired reform so successfully as a "lead" supplied by local legislation based on practical experience. The want of coherence, *savoir faire*, or the means of co-operation among the people at large pointed to this conclusion. The Committee pointed out that a good example of the results that will follow a good lead is apparent in the East Khandesh District of the Presidency, where the District Officer, Mr. Simcox, has gradually, during the course of three years, induced the people to adopt throughout the district uniform weights and measures, the unit of weight in this case being a tola of 180 grains. But the committee abstained from recommending that the same weights and measures should be adopted over the whole Presidency, preferring that a new system started in any area should be as nearly as possible similar to the best system already prevailing there.

**Proposals from England.**—Suggestions have been made by the British Weights and Measures Association and the Decimal Association, respectively, at different times that British weights and measures and the decimal system should be introduced. Both proposals fail to meet the special requirements set forth by the Bombay Committee. Variations of them which have been put forward by different bodies in India in recent years are that the English pound weight and the English hundred-weight should be adopted as the unit of weight for all India. The argument in favour of the importation of an 'blitside unit in this manner is that people in India will always associate with a given, familiar denomination of weight or measure the value they have been accustomed to consider in regard to it, but that if a new weight were introduced they would learn to use it in dealing with their neighbours, without the interference of anything resembling prejudice at what they might regard as an attempt to tamper with their old, traditional standards of dealing.

**Committee of 1913.**—The whole problem was again brought under special consideration by the Government of India in October, 1913, when the following committee was appointed to inquire into the entire subject anew:—

The Hon. Mr. S. R. Arthur, (President).

Mr. C. A. Silcarrad.

Mr. A. Y. G. Campbell.

Mr. Rustomji Kardoonji.

The Committee assembled at Bombay on November 10th afterwards proceeding to other places to obtain the opinions of the Chambers of Commerce and leading merchants and others. The Committee were directed to submit their report in six months and the report will then be referred to local Governments and Administrations before adoption is taken upon it.

## Legislation and Inspection.

The conditions of factory labour until 1913 were regulated by the Indian Factories Act of 1881, as amended in 1891. The chief provisions of the amended Act were Local Governments were empowered to appoint inspectors of factories, and certifying surgeons to certify as to the age of children. A mid-day stoppage of work was prescribed in all factories, except those worked on an approved system of shifts, and Sunday labour was prohibited, subject to certain exceptions. The hours of employment for women were limited to 11, with intervals of rest amounting to at least an hour and a half; their employment between 8 p. m. and 5 a. m. was prohibited, as a general rule, except in factories worked by shifts. The hours of work for children (defined as persons below the age of 14) were limited to seven, and their employment at night time was forbidden; children below the age of nine were not to be employed. Provision was made for the fencing of machinery and for the promulgation of rules as to water supply, ventilation, the prevention of overcrowding, etc.

### Act of 1911.

The decision to undertake further legislation was arrived at after comprehensive inquiries. An important factor in the case was the increasing use of electric light in the Bombay Mills, which radically changed the conditions prevailing when the Act of 1891 was passed and had abolished the security that operatives would not be employed for more than 12 hours a day on the average. The question of the hours of employment in textile factories was brought into prominence by the period of prosperity that the cotton industry began to enjoy in the early part of 1904-05, a large number of persons operatives being regularly worked for 15 hours a day or even longer.

Owing to complaints regarding the long hours worked in many mills, the Government of India in 1906 appointed a small Committee with Commander Sir H. P. Freer-Smith, R.N., late Superintending Inspector for Dangerous Trades in England, as chairman, to conduct a preliminary inquiry into the conditions of labour in textile factories. The Committee recommended that the working hours of adult males should be limited to 12 hours a day; that certificates of age and physical fitness should be required prior to half-time employment and prior to employment as an adult; that night work of women should be prohibited; and that whole-time Medical Inspectors should be appointed.

The conclusions of this Committee formed the basis of an investigation, extending to all factories in India, by a representative Commission. This report disclosed the existence of abuses, particularly in connection with the employment of children, and the excessive hours worked by operatives generally in textile factories. The majority of the Commission deprecated a statutory limitation of the working hours of male adults. But they recommended the formation of a class of "young persons" between 14 and 17 years of age, whose hours should be limited to 12, and considered that this would indirectly secure a

12 hours' day for male adults. They also recommended that the hours of work for children should be reduced from 7 to 6 hours and that the hours for women should be assimilated to those for "young persons," night work being prohibited for both classes. They recommended that children should be certified as to age and physical fitness.

### Hours fixed.

The recommendations of the Committee and of the Commission having been considered by the Government of India and the Local Governments, a Bill was introduced in July 1908 to amend and consolidate the law relating to factories, and was finally passed into law as Act XII of 1911.

The new Act extended the definition of "factory" so as to include seasonal factories working for less than four months in the year, shortened the hours within which children (and, as a general rule, women) may be employed, and further restricted the employment of women by night by allowing it only in the case of cotton-spinning and pressing factories. It also contained a number of new provisions for securing the health and safety of the operatives, making inspection more effective, and securing generally the better administration of the Act. The most important feature of the Act, however, was the introduction of a number of special provisions applicable only to textile factories. The report of the Factory Commission showed that excessive hours were not worked except in textile factories. The Act for the first time applied a statutory restriction to the hours of employment of adult males by laying down that, subject to certain exceptions, "no person shall be employed in any textile factory for more than twelve hours in any one day." It is also provided in the case of textile factories that no child may be employed for more than six hours in any one day, and that (subject to certain exceptions, among which are factories worked in accordance with an approved system of shifts) no person may be employed before 5-30 a.m. or after 7 p.m. (the new limits laid down generally for the employment of women and children). Corresponding limitations are placed on the period for which mechanical or electrical power may be used.

### Factory Inspection.

The inquiries of the Factory Commission showed that the then existing system of factory inspection had not sufficed to prevent widespread evasion of the provisions of the factory law. This result was attributed to the fact that the number of full-time factory inspectors was very small, the work of inspection being to a large extent in the hands of ex-officio inspectors (District Magistrates, Civil Surgeons, etc.) who, as the Commission reported, had neither the time nor the special knowledge necessary for the work. In Bombay Presidency, where there were three special inspectors, it was reported that the Act was, on the whole, well enforced. Steps have been taken since to reorganise the staff of whole-time inspectors of factories in India and to



increase it to a strength sufficient to cope with the work of inspecting all the factories in India. The total strength of the staff is now 14, as compared with 6 at the time of the Factory Commission's report. Each of the larger provinces has at least one inspector. Bombay having five. Except that in a few cases these officers have duties also in connection with

boiler inspection, their whole time is given to factory inspection. The District Magistrate remains an inspector, ex-officio, under the new Act, and other officers may be appointed additional inspectors, but it is contemplated that inspection by ex-officio inspectors will be to a large extent discontinued, or limited to special cases.

## Indians Abroad.

The Indian is naturally averse from emigration beyond the seas. Nevertheless there are many thousands of Indians resident in other lands as labourers, shopkeepers or professional men. Their total number relatively to the population of the Indian Empire is very small. In itself, however, it is considerable; and it acquires an extrinsic importance from the social and political issues involved in the settlement of Indians, either as indentured labourers in Crown Colonies, or as free residents in self-governing countries. The institution of indentured labour in the tropical colonies of the Empire is one of long-standing. As far back as 1804 indentured emigration from India to the British West Indies was in progress under Government control. In the case of several of the tropical colonies there has been no interruption since then in the steady inflow of several thousands of Indian labourers annually. In Mauritius, the Straits Settlements, the Federated Malay States and Natal the system for various reasons has come to an end; but in all those countries there is now a large population of Indians, permanent or temporary, engaged as free labourers or in independent positions. The principal colonies in which indentured emigration still prevails are British Guiana, Trinidad and Fiji. Even here, however, there has been a progressive decline during recent years, owing in part to the increased difficulty of recruiting in India. This difficulty arises entirely from the growing demand for labour within the Indian Empire, consequent upon industrial expansion. The decline spoken of is shown by the totals of emigration to tropical colonies during the quinquennium 1906-1907 to 1910-1911, namely, 21,003, 15,117, 11,844, 11,644, 15,439. Most of these emigrants were under indenture for a term of years—usually five.

**The Indentured System**—has been the subject of much controversy. It is disliked in India and by some people in England because it seems to present features analogous to slavery—in that for the term of his indenture the labourer is not a free agent; he is *descriptus glebae*, and bound to serve the employer to whom he is assigned on terms which are absolutely fixed. In the colonies themselves the system is unpopular on two grounds—(1) it tends to depress the current rate of wages, (2) only a minority of the time-expired coolies become permanent settlers, the majority claiming their return passage and taking money out of the colony in the form of savings. From the point of view of the labourer himself, the indentured system, if it has any true resemblance to slavery, is a kind of bondage that is easily supportable. He is supplied with a free dwelling under highly sanitary conditions, his wages are fixed at the rate prevailing in the open market; no deductions are to be made therefrom for rent, hospital accommodation, medical attendance or medicine, which the estate proprietors are bound to provide. Free schooling is available for his children, and if, at the end of his indenture, he elects to remain in the Colony he is given a free grant of Government land. These are the conditions prevailing in British Guiana, but, with the exception of the grant of land, they are similar

to those in other colonies where indentured immigration is in force. The permanent Indian population in British Guiana is 27,000, in Trinidad 1,13,000, in Fiji 40,000, in Mauritius 2,58,000 and 1,13,000 in Natal. Other colonies such as Jamaica and Dutch Guiana (Surinam) have small communities, amounting in each to a few thousands only of time-expired Indian coolies. Ceylon, the Straits Settlements and the Federated Malay States continue to attract Indian labourers, chiefly from Southern India, although no indenture system now exists in those countries.

**Emigrant Ports.**—The ports at present used for the despatch of the emigrants are Calcutta, Madras, Bombay, and Karachi. Up till 1881 emigrants were despatched from the two French Settlements of Pondicherry and Karikal; but since that date, with the exception of the year 1888-89, emigration has not been carried on at these Settlements. In 1911-12, 8,565 emigrants, or 60 per cent of the total number leaving India, were shipped from Calcutta. By far the greater part of these came from the United Provinces of Agra and Oudh, which between them accounted for some 7,000. Natal, Trinidad, Fiji, Demerara, and Jamaica are the principal countries to which emigrants from Calcutta were sent. The number of coolies who left Madras was 4,782 or 31 per cent of the total, all for Natal, Trinidad, and Fiji. They were drawn from a large number of districts in Madras, the largest number being supplied by North Arcot, Chingleput, and Vizagapatam. For several years now the number of emigrants leaving India *via* Bombay has been insignificant. In 1911-12 the total number was only 196, of whom only 135 went to Mombasa and 22 to the Persian Gulf Ports. Karachi appeared for the first time as an emigration port in the year 1897-98, when 330 emigrants were despatched to Mombasa for work on the Uganda Railway. In the three following years over 27,000 male labourers left Karachi for this purpose. Since then only a few artisans recruited for the Uganda Railway have left Karachi. The emigrants from Karachi come mainly from the Punjab and Sind. The number of emigrants leaving in any one year appears to be based on the demand for labour rather than on any internal causes in India, for no close connection can be traced between the prices of food-grains in India or the birth-rate in the different provinces and the number of emigrants.

**Rights of Citizenship.**—The free emigration of Indians to self-governing colonies, notably South Africa, has given rise to a problem of great difficulty. From the Indian standpoint there are two grievances—(1) the immigration laws of the Colonies discriminate against Asiatics with unreasonable severity, and no consideration is given to Indians as against non-British subjects; (2) those Indians who are settled in the country are denied the status of citizenship, and are subjected to vexatious restrictions as to residence and in some particulars as to domestic arrangements. The increasing prosperity of the Indian communities in South Africa tends

to diminish the force of the former complaint since the rigorous exclusion of new-comers acts as a real measure of protection to those on the spot. The second grievance however is keenly felt not only by those actually affected but also by their very numerous sympathisers in India. They have influential spokesmen in England, notably Lord Ampthill, a former Governor of Madras, who acted as Viceroy in place of Lord Curzon in 1904. Through them the Imperial Government is urged to bring pressure upon the Union Government in the interests of the British Indian subjects settled in South Africa. Such pressure can only be applied to a self-governing dominion with great delicacy, and the wisdom may be doubted of these frequent appeals to His Majesty's Government to exercise an authority, which in point of fact it does not possess in a matter in which Colonial feeling is very easily aroused. Much more hopeful are direct unofficial negotiations such as those carried on last year by Mr. Gokhale, who visited South Africa for the purpose of representing the Indian grievances to the Union Ministry. The Colonial standpoint is quite simple. Self-preservation positively enjoins restriction of Asiatic immigration which implies a standard of comfort impossibly low for the white man. Here at any rate the South African takes his stand on impregnable ground, and Indians with their highly developed caste system ought to be the first to recognise the natural right of any community to decide who shall not belong to it. But the treatment of Indians who are and have been for many years settled in South Africa is another question. It cannot be dealt with on *a priori* principles; still less is it susceptible of treatment by the rough and ready methods that may perhaps be applicable to Kaffirs and Hottentots. The Union Government probably recognise that their connection with the British Empire imposes upon them an obligation to heal a hurt which is no mere local disorder, but reacts painfully upon other, if distant, parts of the body politic. Wise statesmanship may be expected to lead to the same recognition on the part of the South African public.

Towards the end of 1913 the situation in South Africa was much complicated by the revival there of passive resistance with a view to obtaining the removal of a £3 poll tax and

to the amelioration of the Indian position in other respects. (This movement and a march of Indians on strike into the Transvaal led to rioting in several cases, and to the formation in India of a very strong demand for an impartial inquiry—in which India should be represented—into the treatment of Indians in South Africa. This request was so far conceded by the Union Government as to appoint a Commission consisting of Sir William Solomon, Mr. Esselen and Colonel Wyllie, to inquire into the disturbances and the causes leading to them. The Commission recommended the release of the leaders of the passive resistance movement, and Mr. Gandhi and his chief coadjutors were liberated from the gaols in which they were serving sentences for defying the law. At the invitation of the Commission, the Government of India also decided to be represented before the Commission, and Sir Benjamin Robertson, Chief Commissioner of the Central Provinces, was selected for this purpose, leaving India on January 1st. On their release, however, the leaders of the South African Indians declared that they had no confidence in the Commission, that evidence would not be given before it unless the personnel was supplemented by the addition of men like Sir James Rose-Innes and Mr. Schreiner, and that if this and minor requests were not met the passive resistance movement would be renewed on January 1st. The Commission announced that their next sitting would be at Durban on January 12th. (See also *Chronicle of the year*, under October—December.)

The way in which the matter is eventually settled in the Union of South Africa will have an important bearing on similar problems elsewhere. There are over 4,000 Indians (chiefly Sikhs) in British Columbia. By a Privy Council Order Asiatic immigrants may be excluded on failure to prove 'a continuous journey' from the port of embarkation. As no shipping company issues through tickets from India to Vancouver, the immigration of Indians is thus illegal, and many of those settled there have experienced great difficulty in bringing their wives and families to join them. The British Columbia Indian residents complain that in practice more consideration is shown to Chinese immigrants and Japanese than to them.

Number of Coolie Emigrants embarked from Indian Ports to various Colonies.

Years.	From Calcutta.					From Madras.			From Bombay and Karachi.			Grand Total.	Number of Emigrants who re- turned to India.		
	To British Colonies.					To British Colonies.			To Bombay and Karachi.						
	To Dutch Colo- nies.					To British Colonies.			To Bombay and Karachi.						
	Mauri- tius.	Natal.	British Guiana.	British West Indies.	Fiji.	Mauri- tius.	Natal.	Sey- chelles & Fiji.	Total.	To Mom- baya, other places.	To Total.				
1900-01	1,753	822	3,932	2,450	2,533	..	11,310	1,476	5,490	6,960	8,032	..	8,032	26,508	7,006
1901-02	652	1,178	4,276	2,542	2,319	1,843	12,310	3,309	6,355	10,134	4	..	4	22,408	10,623
1902-03	786	2,811	1,968	3,004	840	637	10,066	1,785	3,329	5,114	173	60	233	15,413	12,757
1903-04	..	1,374	2,937	2,449	2,392	..	9,152	510	3,078	88	25	..	25	13,665	11,673
1904-05	1,442	1,799	1,348	1,844	..	249	6,682	625	8,493	9,118	97	42	139	13,939	6,341
1905-06	720	1,670	2,737	3,429	2,292	175	11,023	..	9,304	9,594	448	60	308	21,125	6,945
1906-07	619	3,000	2,337	2,514	2,465	1,270	12,205	..	7,842	7,842	866	87	933	21,003	8,197
1907-08	587	825	1,830	2,474	1,137	1,918	8,771	..	*5,839	5,839	333	124	327	15,117	6,774
1908-09	..	..	1,797	2,863	2,693	2,435	9,788	..	1,937	1,937	80	39	119	11,844	7,918
1909-10	..	494	2,515	3,397	1,451	478	8,535	..	2,937	2,937	53	119	172	11,644	6,909
1910-11	533	2,066	2,173	2,822	805	..	8,399	..	6,537	6,537	127	376	503	15,439	5,788

\* Natal only.

## Indians in Great Britain.

Nearly sixty years have gone by since the Parsi community, in the persons of Mr. Dadabhai Naoriji and other members of the firm of Cama and Co., led the way in the residence of Indians in England for business purposes. This lead it has since maintained, though there are both Hindu and Mohammedan business men firmly established here. Nor are the professions unrepresented, for there are in London practising barristers and solicitors of Indian birth, and at least one Indian successful in the Civil Service examination elected to work in England instead of returning to his native land. The early years of the present century have seen the gathering of a new element in permanent Indian residence—that of retired officials (particularly of the I. M. S.) and business men, or people of independent means who from preference, or in order to have their children educated in England, leave the land of their birth and seldom if ever visit it again. Further, the increasing stream of Indian summer visitors, includes wealthy people who come as regularly as the swallows in spring, and spend as much time in England as on the Continent as in their native land. While the men adopt European dress so fully that a turban is a rare sight even at Indian gatherings, the ladies wisely retain their graceful Eastern habiliments, and it is astonishing to note on occasions how large is the number of Indian women it is possible to collect together at the Criterion or at 21 Cromwell Road.

### The Students.

But it is the student community which constitutes the greatest preponderating element and creates an Indian problem. Its numbers have multiplied ten or twelvefold in the last quarter of a century, the increase being especially rapid since 1901 or 1905. There was indeed an artificial inflation some three years ago, when many youths (some of them ill-prepared) were hurried off to the Inns of Court in order to be entered before more stringent rules for admission from the overseas dominions came into force. While this sudden expansion has been worked off to a large extent, there has been growth of numbers in other directions, and particularly that of the technical and engineering schools and classes, with the result that the aggregate numbers may be estimated at about the same as two or three years ago, namely, between 1,600 and 1,800. This total does not include more than a few of the growing number of youths of good family, some of them heirs of Native States, admitted into our public schools, including Eton and Harrow. It does not comprehend Burmese students of whom there are well over 100. Nor does it take full account of female students in schools and colleges. While it is not possible to obtain exact and complete records, it is certain that the young Indians of both sexes and all ages under instruction in the British Isles is well over 2,000, and possibly nearer 3,000.

It is, however, with the 1,600 or 1,800 young men, almost all far removed from parental oversight and control that the organization set up by the Secretary of State for India has

to deal. Of these 270 are at Lincoln's Inn about 90 at Gray's Inn and 40 at the Inner Temple, with a considerable but unascertained number at the Middle Temple. Altogether, including technical and medical students, there must be 800 or 900 in London. Edinburgh comes next with 229, Cambridge with 117, Oxford with 66, Glasgow with 70 and Manchester with 50, while there are smaller numbers at Birmingham, Leeds, Sheffield and other centres.

### The Bureau.

It is well known that until a few years ago the young Indians, apart from inadequately-supported unofficial effort and the chance of coming under the influence of English friends of their families, were practically left to their own devices. But in April 1909 Lord Morley, as a result of the investigations of an India Office Committee, created for their benefit a Bureau of Information and appointed Mr. T. W. Arnold to the charge of it under the title of Educational Adviser. The Bureau was located in due time at 21 Cromwell Road, together with the National Indian Association and the Northbrook Society, which were thus given spacious quarters for their social work among the young men, without incurring what would otherwise have been the prohibitive cost of heavy rent. Lord Morley also established an Advisory Committee, with Lord Amthill as chairman, mainly composed of influential Indian residents, and in India corresponding provincial and district committees were formed to help and advise intending students. The work of the Bureau rapidly expanded, and in consequence Lord Crewe in 1912 re-organised the arrangements under the general charge of a Secretary for Indian Students, Mr. C. E. Mallet. While Mr. Arnold continued to look after the Indian students and to act as guardian when so desired by the parents, local Advisers were appointed at the provincial Universities.

Two strange delusions (in some cases they may be called deliberate misrepresentations) have been propagated in reference to these arrangements. One is that the India Office set up the Bureau in order to track down the wave of seditious sentiment which culminated in the assassination of Sir Curzon Wylie four years ago. As a matter of fact the Bureau was established three months before the commission of that crime, and was proposed at least a year previously. The object as *The Times* observed in September 1908 was not "to put these young men into political leading strings, nor officially to restrict their liberty. It lies in doing all that is possible to facilitate their educational progress and their general welfare, and in bringing them under wholesome and helpful influence." Mr. Arnold accepted his appointment on the distinct understanding that there would be no sort of kind of espionage; and Mr. Mallet lately told a gathering of students that it was a complete delusion to regard the Bureau as an instrument of espionage. He would never have anything to do with it if that were its character.

### Opening Closed Doors.

It is no less of a delusion for the students to hold, as some of their elder fellow-countrymen have encouraged them to do, that the Bureau is responsible for restrictive rules and regulations of colleges and other institutions, or at any rate for their continuance in spite of protests. The fact of the matter is that in consequence of the wave of disaffection to which reference has been made, as well as of various practical difficulties arising from the growth in numbers of Indian applications for admission, many of the universities and other educational institutions had passed restrictive, and in some cases almost prohibitive, regulations affecting Indians when the Bureau came into being. The authorities in question are independent of outside control, and of no department in Whitehall are they more so than of the India Office. The Bureau cannot do more than approach them with requests and suggestions for the benefit of Indians, or with undertakings to afford the sponsorship which in many cases is made a condition of admission.

Since Mr. Mallet told the students face to face that so far from blocking the way, as hostile observers have alleged, the Bureau has been singularly successful in opening closed doors and mitigating any real grievances, there has been no serious effort to question the many proofs he gave. He intimated he would welcome the co-operation of their organization for promoting the educational interests of the students. But it is easier to make eloquent speeches and pass resolutions than to study rules and regulations and represent to the authorities with moderation and clearness where they need amendment; and the organization has so far been infructuous. A more hopeful project, because not inspired by any spirit of grievance-mongering, is the London Indian Association lately established to combine the students together in efforts for their social and intellectual welfare originated by Mr. Jimrah, and which has the co-operation of leading permanent residents.

It is also satisfactory that the careful inquiries of Sir T. Morison's Committee on State Technical Scholarships have shown that the difficulties encountered by young Indians in supplementing academic instruction by technical experience in factories and workshops

are general in character, being also applicable to their English contemporaries, and that there is "on the whole very little evidence of a racial prejudice against Indians." And no youth need come here (as was so frequently the case in the past) under any misapprehension as to the facilities for his education and their limitations. The excellent "Handbook of Information for Indian Students" issued by the National Indian Association and the Advisory Committee, now in its fourteenth edition (1913) supplies all relevant facts and advice; and on personal details, the local Advisory Committees can be consulted.

### Persuasion not Coercion.

Another mistaken notion, held by some Anglo-Indians of the old type, is that the Bureau could easily exercise disciplinary control over all young Indians in London. The fact is that except to holders of Government and some Native State Scholarships it has no disciplinary authority save when parents place their sons under guardianship of Mr. Arnold or a provincial Adviser, and even in these cases the control can only be exercised in connection with the administration of the regular allowances. Undoubtedly the Bureau has had a most beneficial influence in saving scores of young men from falling into debt, intemperance or marital folly; but this has been exercised not coercively but by friendly personal contact and keeping before them the obligation and necessity from every point of view of adhering to the purposes of educational equipment for which they have gone to England. From the first there has been no thought of exercising compulsion direct or indirect, to bring students under the Educational Adviser; the keynote of the scheme has been that of enabling them to make use of facilities for their welfare at their own discretion without any apprehension of constraint or coercion. From this point of view the re-constitution on a more definite and systematic basis of Lord Amthill's Advisory Committee is to be welcomed. Generally it may be said that considering the difficulty of the problem, the success attending the arrangements initiated in April 1909 has been considerable; and that they have in them the promise of increasing good in the light of accumulated experience.

## The Currency Commission.

The Royal Commission on Indian Currency and Finance was appointed in April 1913, in order to inquire into certain questions arising out of the management of the Indian currency system and the control of Indian finance. For some years, and particularly since the American crisis of 1907, when the Indian currency system was severely tried, much criticism had been levelled against the manner in which the principles laid down by the Fowler Committee of 1898 had been developed, and against the extent to which Indian funds and reserves had been drawn to London. These criticisms were brought to a head when strong complaint was made in Parliament of the agency through which large purchases of silver were made for the Government of India in 1912. To settle these issues the Commission was appointed, and it took evidence throughout the latter part of the year.

The Royal warrant appointing the Commission named Mr. Austen Chamberlain, M.P., as Chairman, and the following members: Lord Faber, Lord Kilbracken, Sir Robert Chalmers, Sir Ernest Cable, Sir Shapurji Broacha, Sir James Begbie, Mr. R. W. Gillan, C.S.I., Mr. H. N. Gladstone, and Mr. John Maynard Keynes. The personnel of the Commission commanded a wide measure of confidence. Mr. Austen Chamberlain's long connection with the Treasury made him an excellent Chairman. Lord Faber was well-known as the organiser of the Country Bankers' Association; Lord Kilbracken was long connected with the India Office as Sir Arthur Godley; Sir Henry Chalmers, in addition to his long experience at the Treasury, was Secretary to the Fowler Committee (he was appointed Governor of Ceylon and left England during the recess); Sir Ernest Cable is one of the best known business men of Calcutta; Sir Shapurji Broacha is the foremost Indian broker of Bombay; Sir James Begbie, a Presidency Banker and economist of great experience, is the senior Presidency Banker in India; Mr. Gillan, after filling the office of Comptroller-General and head Commissioner of Paper Currency in India with distinction, holds the post of Financial Secretary to the Government of India; Mr. Gladstone is partner in an important Calcutta firm and adds to his Indian experience a knowledge of business conditions in London; and Mr. Keynes is a well-known writer on economics who has devoted a considerable amount of attention to the Indian currency system. But apart from the actual personnel of the Commission, it was recognized that the Government, in appointing to the Commission none who were strongly identified with the system under criticism, had given conspicuous evidence of their desire to investigate impartially the whole question.

### Terms of Reference.

The specific points referred to the Commission were to inquire into the location and management of the general balances of the Government of India, the sale in London of Council Bills and transfers, the measures taken by the Indian Government and the Secretary of State for India in Council to maintain the exchange value of the rupee in pursuance of,

or supplementary to, the recommendations of the Currency Committee of 1898, more particularly with regard to the location, disposition, and employment of the Gold Standard and Paper Currency Reserves, and whether the existing practice in these matters is conducive to the interests of India; also to report as to the suitability of the financial organisation and procedure of the India Office, and to make recommendations. To understand the trend of the inquiry, it is necessary to look back a little. The currency system of India until 1893 was based on the free coinage of silver. Anyone tendering silver bullion at the Indian mints was entitled to receive an equivalent quantity of silver rupees, whose par value was two shillings. But the discovery and development of the silver mines in America and elsewhere so vastly increased the quantity of silver produced that its value measured in gold rapidly declined. At one time the gold value of the rupee fell as low as a fraction over a shilling. This caused great embarrassment to the Government of India, which has every year to meet in gold in England large sums included generally under the name of the Home Charges. These include interest on the sterling debt, pensions and furlough allowances payable in England, and stores. They amount roughly to eighteen million pounds sterling a year. The depreciation in the sterling value of the rupee necessitated the devotion of a larger and larger number of rupees to this purpose, until the alternatives were either the imposition of additional taxation to a point which would be politically dangerous, or the adoption of some measures to raise the exchange value of the rupee. Between 1878 and 1892, when these difficulties were most acute, the main object of the Government of India was to facilitate an international agreement which might cause a rise in the gold price of silver, and thus diminish the inconvenience arising from the retention of a silver standard for India. But when the prospects of an international agreement receded it was then decided to take independent action. Acting on the recommendations of a Committee which was appointed in 1892 and reported in 1893, commonly called after its President, the Herschell Committee, the Government decided to close the Indian Mints to the free coinage of silver and to announce that although closed to the public, the mints would issue rupees to the public in exchange for gold at the ratio of fifteen to one, equivalent to one shilling and four pence ~~two rupees~~.

### The Indian System.

The effect of this policy was steadily to raise the exchange value of the rupee, until in 1898 it had approximately reached the ratio to gold of fifteen to one. The next point was to determine what further steps should be taken to give full effect to the principles laid down by the Herschell Committee and accepted by both Governments. These questions were referred to the Commission presided over by Sir Henry Fowler, which reported in 1898. This Commission produced a report of remarkable lucidity and ability, and contrary to general expectation it was practically unanimous. It recommended that a gold standard

should be established, and the ratio between the rupee and the sovereign was to be fifteen to one. The mints were to be opened for the coinage of gold, but to remain closed to the public for the coinage of silver. Government alone were to have the right to coin silver, subject to directions laid down, and the profits accumulated from this coinage were to be accumulated to form a special reserve in gold. It is of the greatest importance to remember that the Fowler Committee recommended that there should be the normal accompaniment of a gold standard—a gold currency and a gold mint, and emphatically put aside the suggestion that there should be a gold standard without a gold currency—a system which has since obtained some measure of academic support under the name of the gold exchange standard. The chief criticisms of the policy actually pursued centre round the broad issue that whilst accepting the Fowler Committee's recommendations in principle the Government of India, or rather the Secretary of State acting on the advice of a Finance Committee on which the Indian element was reduced until it disappeared, departed from them in practice. With this introduction, we can consider the criticisms levelled at the practices specifically referred to the Chamberlain Committee.

#### Cash Balances.

The cash balances of the Government of India are held in part in India and in part in London. This arises from the necessity of meeting obligations in both countries. Formerly the Secretary of State managed his disbursements with a balance of between four and five millions sterling. But from 1907 onwards this policy was reversed and enormous balances were heaped up in London.

The growth of these balances is illustrated by the following figures:—

	£
1907 .. .. .	4,607,266
1908 .. .. .	7,983,898
1909 .. .. .	12,799,090
1910 .. .. .	16,697,245
1911 .. .. .	15,292,638
1912 .. .. .	18,390,013

It was contended that these balances should have been retained in India, and there used either for the reduction of taxation or for expenditure on ameliorative works like education, sanitation and medical relief. The official explanation was that these balances were drawn to London to meet the convenience of trade, which had grown used to the convenience afforded by the sale of Council Bills far in excess of the Secretary of State's budgeted demands. Arising out of this question was a subsidiary one. It was remarked that the whole of the Secretary of State's cash balances were lent in London at low rates of interest. In part these went to "approved" borrowers, on security, and when these were glutted, to the London joint stock banks—including those banks represented on the Finance Committee of the India Office Council—without security. On the other hand the surplus balances of the Government of India in India were withdrawn from the money market and locked up in the Reserve Treasuries, with the effect of making money artificially dear every busy season, to the great disadvantage of the internal trade;

and all attempts to have these funds placed at the disposal of the market had met with a practical *non possumus*.

#### Council Bills.

Arising out of this question of the balances in London was the subsidiary one of the rates at which the Secretary of State sold Bills and Telegraphic Transfers on India. The Secretary of State has to meet his Home Charges in London. To do this he sells what are called Council Bills every week. These Bills are offered for tender at the Bank of England every Wednesday morning and successful tenders are given Bills on Bombay, Calcutta and Madras, which are cashed at the Treasuries. Inasmuch as a fortnight is lost by the time in transit, it is worth paying extra to obtain what are called Telegraphic Transfers, by means of which rupees can be obtained from the Treasuries in India almost immediately after the payment of gold into the account of the Secretary of State in London. Telegraphic Transfers usually sell at a rate of one thirty-second above the rate for Bills. In addition to the weekly allotment the India Office sell bills called "specials" between the weekly allotments, at one thirty-second above the auction rate. The criticism directed against this practice was to the effect that on occasion lower rates were accepted than might have been obtained, and that Bills against the Gold Standard and Paper Currency Reserves were sold below gold export point, thereby diverting the natural flow of gold to India.

#### Exchange Value of the Rupee.

The buttress of the gold standard under the system recommended by the Fowler Committee was to have been twofold—a gold currency, and a special reserve, built up out of the profits on coining. It was made the ground of criticism that having decided to adopt these principles, the India Office did practically nothing to establish an effective gold circulation. After one abortive attempt, the policy of accustoming the people to a gold circulation was abandoned. On the other hand, the coining of rupees was prodigiously heavy. During the years 1905-07 £42 millions' worth of rupees were added to the token currency, which is said to be the heaviest coinage in the history of the world. The result was that instead of endowing India with a gold currency and a subsidiary token coinage, the vast bulk of the metallic circulation was in rupees. The standard was gold, but the circulating medium was silver. According to the latest returns the currency of India is made up of sixty crores of gold, sixty crores of notes, and one hundred and eighty crores of rupees. A certain amount of gold has flowed into the country and had passed into the circulation in the form of sovereigns, but it was contended that the prodigious coining of token rupees, the lack of any definite policy to popularise the sovereign, and the failure to open the Indian mints to the coinage of a gold piece of more convenient value than the fifteen rupee sovereign, had resulted in the establishment of a system never contemplated by the Fowler Committee, namely an enormous token currency with a small gold circulation.



**Gold Standard Reserve.**

Failing an effective gold circulation, the fund formed from the profits on coining, called the Gold Standard Reserve, became the only effective buttress of exchange. It was complained that whereas the principles laid down for the management of this fund were clear and definite, they had been systematically departed from in practice. For instance, it is now admitted that the Fowler Committee meant that this fund should be held in gold in India. Contrary to the express desire of the Government of India, the Secretary of State decided that it should be held in securities in London. Then in 1906, in order to meet an embarrassing demand for rupees at the height of the busy season in India, it was decided to hold £4 millions of the Reserve in silver in India. In 1907, pressed to find money for railway construction in India, the India Council decided to devote half the profits on coining to capital expenditure on railways. These changes were made without consulting the great commercial interests affected, and so far as the diversion of a moiety of the profits on coining were concerned, in direct opposition to the policy of the Government of India.

The critics maintained that their position was made good by the results of the crisis in America in 1907. The sudden cessation of the demand for Indian produce caused by the financial collapse in the United States, combined with a partial famine in India and the heavy arrival of imports in response to long-dated contracts, reversed the tide of exchange for the first time since the gold standard was established. There was a demand for gold in London rather than for rupees in India. The Gold Standard Reserve, which should have been readily available for this purpose, then stood at £50,000 in money at short notice and £14 million in securities. There is no doubt that the weakness of the position thus revealed paralysed the action of the Government when the emergency arose. Council Bills were unsalable. Gold was released only in dribbles of £10,000 at a time, and exchange, which was to have been maintained at one and four pence, fell to one-thrice eleven-sixteenths. Later, the India Office had to agree to sell sterling bills on London at gold export point, and £ 8 millions were taken in this way before the demand was stayed. Various other expedients had to be adopted in order to weather the storm, and it has been calculated that the deterioration in the Secretary of State's position in the year of the crisis was not far short of £ 25 millions. This experience has been cited as illustrative of the necessity of strengthening the gold reserves of India without any further tampering with the Gold Standard Reserve, of allowing that Reserve to grow without limit, and of keeping a substantial portion, if not the whole, in actual gold.

Apart from the withdrawal of the Gold Standard Reserve to London and its investment there, under an Act of 1905 a sum of £ 6 million of gold in the Paper Currency Reserve was withdrawn from the Indian treasuries and deposited in the Bank of England under the unfettered control of the Secretary of State. The declared object of this fund was to facili-

tate the purchase of silver for coining. On the other hand critics pointed out that inasmuch as the Paper Currency was only redeemable in India, the proper place for the Paper Currency Reserve was in India and not in London. Further, that although the fund was specially removed to London for the purchase of silver, silver had since been purchased from the cash balances.

**Financial Organisation of the India Office.**

The financial business of the India Office is managed by the Finance Committee. This Committee exercises very wide powers. In practice, it is said, the powers of the India Office are mainly exercised by the different committees into which it is divided. The collective authority and influence of the Council are weak, and the Secretary of State and the Committees are supreme. Whilst this generally applies to the work of the India Office, it applies with particular force to the work of the Finance Committee. Finance is a technical subject, with which few of the members of the Council are competent to deal. Moreover, much of the work must be done from day to day, and cannot wait for the weekly meeting of the Council. It was made a matter of complaint that the constitution of this Committee, which, to use the words of an ex-Viceroy, Lord Curzon, exercises wide powers, and acts, not only as financial arbiter, but almost financial autocrat, had undergone a marked change. Whilst formerly there used to be upon it some member who had served the Government of India in the Finance Department, and on occasion a member who had been in the employ of one of the Presidency Banks, this Indian element had been gradually reduced to vanishing point, until the Finance Committee of the India Office Council consisted of two London joint stock bankers and one member of the Home Civil Service, none of whom had any experience of Indian conditions. It was argued that the Finance Department of the Government of India should always be represented on this Committee, by a retired officer, and if practicable, the Presidency Banks and Indian Commerce and industry.

**The Evidence.**

The Commission commenced its sittings on May 27th, and rose for the recess on August 6th. It then issued what has been called an interim report, but which never pretended to be anything of the sort, and was confined to a reprint of the evidence given up to that point, without comment of any description. This blue book contained the important correspondence which had passed between the Government of India and the India Office on currency and finance questions, together with memoranda from the India Office outlining their policy on the principal subjects under examination. It also contained the evidence of the official witnesses on behalf of the India Office—Mr. Lionel Abrahams, C. B., Assistant Under Secretary of State for India; Mr. F. W. Newmarch, Financial Secretary at the India Office; Mr. Walter Badoock, C.S.I., Accountant General at the India Office; and Mr. H. E. Scott, Broker to the Secretary

of State in Council. Then followed many miscellaneous witnesses, whose names and qualifications are given below:

Sir Daniel Mackinnon Hamilton, nominated by the Bengal Chamber of Commerce. Indian landowner.

Mr. J. A. Toomey, Manager of the National Bank of India, Limited.

Mr. T. Fraser, Manager of the Chartered Bank of India, Australia and China. Nominated as their representatives by the Exchange Banks doing business in India.

Mr. O. T. Barrow, C.S.I., formerly Comptroller and Auditor General in India (1903-1910), retired. Witness on behalf of the Government of India.

Mr. Alfred Clayton Cole, Governor of the Bank of England, 1911-1913.

Mr. Harry Marshall Ross, retired Calcutta Export Merchant, late Honorary Secretary, Central Committee, Indian Currency Association, Nominated by the Bengal Chamber of Commerce.

Sir Alexander McRobert, Indian Woollen Manufacturer, a former President of the Upper India Chamber of Commerce, and a former Member of the Legislative Council of the United Provinces, Nominated by the United Provinces Government.

Mr. Bhupendra Nath Mitra, C.I.E., Assistant Secretary to the Government of India in the Finance Department. Witness on behalf of the Government of India.

Mr. James K. Graham, nominated by the Bombay Chamber of Commerce.

The Hon. Montagu de P. Webb, C.I.E., Chairman of the Karachi Chamber of Commerce.

Mr. William Denard Hunter, Secretary and Treasurer of the Bank of Madras, and Chairman of the Madras Chamber of Commerce.

Mr. Charles Campbell McLeod, nominated by the Bengal Chamber of Commerce and the East India Section of the London Chamber of Commerce.

Mr. Marshall F. Reid, C.I.E., Merchant. Member of the Legislative Council, Bombay.

Mr. Le Marchant, a former Member of the Indian Council and a former Chairman of its Finance Committee. A Member of the Indian Currency Committee of 1898.

Mr. L. G. Dunbar, Secretary and Treasurer of the Bank of Bengal.

Mr. H. F. Howard, C.I.E., I.C.S., Collector of Customs, Calcutta. Witness on behalf of the Government of India.

Mr. Thomas Smith, nominated by the Government of the United Provinces for his knowledge of the Currency and Banking problems of North India.

Mr. M. R. Sundara Iyer, Secretary to the Economic Association, Madras. Nominated by the Madras Government.

The Commission reassembled in October, when further evidence was taken. The receipt of evidence closed in the middle of November, when the Commission prepared to issue their report. It is expected that this will be published toward the end of 1913, or early in 1914.

### Trend of feeling.

It is extremely difficult, if not impossible, fairly to summarise in a few sentences evidence covering so wide a field. Although any such attempt must lay the writer open to the charge of bias, the following indications on the chief subjects under inquiry are given, as some revelation of the general trend of the evidence. With regard to the cash balances, and the sales of Councils which have given to them, the India Office explanation of the policy underlying these transactions was quite different from that previously offered in the House of Commons. That was that Councils in excess of the Secretary of State's budgeted requirements were sold in order to meet the needs of trade, which could not be carried on without them. The India Office case put before the Commission was that the policy of the Secretary of State was to hold the whole of the surplus balances of the Government of India at his disposal, to remit to London as much of them as the demands of trade permitted, and when money was accumulated in London to decide what should be done with it—either to employ it for the avoidance of debt by financing capital works out of revenue instead out of capital, to reduce temporary debt, to replenish the Gold Standard Reserve or the Paper Currency Reserve. For this reason, Councils against the Gold Standard Reserve or the Paper Currency Reserve were not specially sold, but the funds required in these reserves were taken from the general balances so accumulated. These balances had been unusually large, because the surplus balances of the Government of India had been unusually large and trade active; the balances in London on March 31st, 1913, was £8,372,900. There was, it was declared, no intention of arresting the natural flow of gold to India but only such portion of this normal flow as the country was deemed incapable of absorbing. There was a sharp difference of opinion on the subject of the respective merits of central reserves and a gold circulation as a means of supporting exchange. On the one hand it was contended that the profits on coining formed a reserve actually in the hands of Government, which was immediately at the disposal of Government in emergencies, whilst a gold circulation meant diffused reserves which might not come out in an emergency. On the other hand, it was argued that the central reserves involved the expenditure of £600,000 on every million sterling of metallic currency in the purchase of silver, with only £400,000 in reserve, whereas a gold circulation induced the circulation of full value coins, which would be bound to come out when wanted. Moreover a gold circulation would at once sweep away many of the artificialities, which had gathered round the gold standard. An equal difference of opinion was manifested on the subject of the need of a gold mint, one school arguing that it was an expensive luxury, inasmuch as sovereigns flowed freely into India, and the other that a gold mint was essential to the automatic working of the gold standard and that India was perfectly willing to pay the price. The India Office case with regard to the composition of the gold standard reserve received practically no support. That

case was that securities were as good as gold for the purpose, and that the experience of 1907-08 indicated that the reserve was practically sufficient to meet any probable demand on it, so that some of the natural growth might be diverted to other purposes. But the weight of informed Indian and London evidence was that in time of crisis nothing could take the place of gold, that there should therefore be a large gold holding, and that the experience of 1907-08 was so illusory that no present limit should be placed on the Reserve. A strong feeling was evidenced in favour of retaining the gold standard reserve in London, of bringing it under statutory control and not leaving it in the unfettered control of the Secretary of State, and of abolishing the silver branch of the reserve; and a weaker feeling in favour of abolishing the London branch of the Paper Currency Reserve. There was also a volume of evidence in favour of placing the balances of the Government of India at the disposal of trade in India and of providing for the representation of Indian interests on the Finance Committee of the Secretary of State's Council.

#### **A Central Bank.**

A question which was not specifically referred to the Commission, but which has loomed large in the evidence, is the provision of a State or Central Bank, which would take over

a large amount of the banking and financial business now conducted by the Government of India and the Secretary of State. In the absence of any concrete and practicable scheme, the evidence was generally hostile to this idea, on the ground that India was too large a country for one institution, that provincial interests were too strong to allow of their subordination, and that on the whole Government and the Presidency Banks did their business well, and no change of system was required, but rather a reform and development of the present system. But there has since grown up a stronger feeling that a central system is necessary for the better organisation and utilisation of Indian credit, that the difficulties are not insuperable, provided the Bank is a State Bank, with local boards responsible for the control of local credit, and that the whole of the Government balances are kept with the Bank, which shall be entrusted with the management of the Paper Currency. This feeling has been fortified by the collapse of a number of the indigenous Banks which have sprung up in India of recent years, showing that there is a demand for further credit facilities, and that if this is not met by a central institution, it will be catered for by mushroom organisations, whose inevitable failure will throw back the fuller organisation of Indian credit for generations.

## India and Free Trade.

It is not infrequently charged against the British advocates of the maintenance of Free Trade for India that they are guilty of hypocritical selfishness, and that their real object is to retain the Indian market for themselves. This allegation can only be advanced by controversialists who shut their eyes to facts, and ignore the opposition which Free Traders offer to attempts to introduce a Protective Tariff at Home in the interests of British manufacturers. The position adopted by the Free Trader is that the present and ultimate economic good of every country is most effectually secured by giving the people access to the best markets for the satisfaction of their needs. The people of India enjoy this right under Free Trade, as do the people of Great Britain. If the day should come when Great Britain resorts to Protection the moral ground for maintaining Free Trade in India will have disappeared, and in the event of the Government of India then proposing to establish a Protective Tariff the British Protectionist Government would have to assent to the proposal or adopt the hypocritical attitude which is now attributed to Free Traders. And it may be said here that, if the policy of the Free Trader were to admit British goods into India free of duty, while imposing heavy imposts on merchandise purchased by India from other countries, the epithets now applied to him unjustly would be justifiable and appropriate in his case. Coming to the concrete aspect of the question, there is undoubtedly great force in the contention that if the Tariff Reform party at Home secured a majority in Parliament, their real troubles would at once pass. It is one thing to indulge in vague platform rhetoric over the desirability of taxing the foreigner's goods, and another to frame a Protective Tariff which would not cause serious dislocation of trade and inflict grave injury on large sections of the community. Difficulties would also arise here if the advocates of Protection in this country were given a free hand to deal with import duties. Of the imports of foreign merchandise into India in the official year 1912-13, Rs. 23 crores consisted of food and drink. A further Rs. 124 crores was made up of "Raw material and produce and articles mainly unmanufactured." Manufactured articles amounted to Rs. 123 crores, including large classes of manufactures which India does not produce. Considerably more than half consists of cotton piece-goods and other articles of clothing. The framers of a Protective Tariff would therefore be confronted with the facts in the first place that a large proportion of the imports comprise goods which are not produced in India, and, in the second, that unless he taxed the

clothing and the food of the masses his Protective Tariff would be an exiguous quantity. Among the food imports, sugar is by far the most important, amounting last year to Rs. 144 crores. This commodity, because of its cheapness, is largely consumed by the poorer classes. The greater portion of it comes, of course from Java, where, owing to the modern scientific methods adopted production is less costly and more efficient than in India. The most effective means of meeting the competition of the Java product is by improving the methods in vogue in India, and this fact happily is receiving practical recognition. But the Protectionist's idea is to shut out foreign sugar by taxation, a device which would enhance the price of a popular food, and at the same time tend to perpetuate inefficiency in the indigenous industry. When this subject was fully debated in the Imperial Legislative Council some two years ago, Mr. Malivaya asserted that he would not shrink from imposing a duty of 30 per cent. or even more on imported sugar. It was pointed out, however, by Mr. Gokhale, that in order to give effective protection to the indigenous industry a duty of 80 per cent. would be necessary.

A widespread desire no doubt exists among Indian politicians to impose import duties on cotton cloth. The effect of such a tax would be to raise the cost of the clothing of a population, the overwhelming majority of whom derive their livelihood from cultivating the soil. They have no voice in deciding the policy of the Government, and no knowledge of the opinions and speeches of Indian public men. Their best interests are obviously served by enabling them to exchange their surplus produce on the most favourable terms for the manufactured articles which they require for their comfort or for the purposes of their daily avocations. This they can do under Free Trade, and it is the solemn duty of the Government to consider their needs rather than the claims of the wealthy and influential advocates of a Protective Tariff. Great industries have sprung up in India without the adventitious aid of Protection, and there is every reason to hope that the field will be greatly extended when wealthy Indians show more willingness to embark their capital in industrial enterprises. But if any class of manufacturers succeeded in inducing the Government to subsidise it by means of Protective duties, a deafening and unreasoning clamour would arise from many directions for similar favours. The grave possibilities that lie here will be appreciated by all who have studied the history of Protection in the United States and are acquainted with the conditions that obtain in India.

## Indian Tariff Possibilities.

By M. DE P. WEBB, C.I.E., (*Author of "Advance India," etc.*).

The expediency of subordinating every social, economic, political and imperial consideration to the attainment of cheapness in consumption has never been recognised or admitted by Indian thinkers. For this reason, the abolition of the general five per cent. import duties in 1882 in obedience to the demands of English Free Traders aroused no enthusiasm in India. Nor did their re-imposition in 1891 (when the Government of India, owing to financial stress, were compelled to seek additional revenues), lead to any general protest on the part of Indian consumers or others. The 1894 Customs Tariff is still in operation. Its general design and modifications foreshadow a departure from the rigid formulae of the extreme Free Trader. Thus, although the reduction of the general 5 per cent. duty to 3½ per cent. in the case of cotton piece-goods and certain other manufactured cotton goods, and the imposition of a 3½ per cent. Excise Duty on the products of the Indian Cotton Mills, reveal a deplorable sacrifice of Indian interests to the demands of the cotton manufacturers of the English Midlands, the lower rate of duty of one per cent. on many iron manufactures, and the admission of Railway material, power machinery, printing presses and ink, coal, manure, works of art, lead sheets for tea chests, and other special articles *free of duty* indicates a desire on the part of Government to utilise the tariff for the encouragement of certain kinds of economic development in India. This move in the direction of a scientific tariff is one that is heartily welcomed in India.

A further step towards a Tariff appropriate alike for Indian and Imperial requirements was taken in March, 1913, when the Hon. Sir Gangadhar Chitnavis, Member for the Central Provinces, moved the following Resolution in the Imperial Legislative Council:—

'That this Council recommends to the Governor General in Council the desirability, in view of the loss of the opium revenue, of considering financial measures for strengthening the resources of the Government, with special reference to the possibility of increasing the revenue under a system of Preferential Tariffs with the United Kingdom and the Colonies.'

The mover argued that the benefits to India that would arise from the adoption of the principle here indicated, would be well worth the price that India might have to pay therefor. Sir Guy Fleetwood Wilson on behalf of the Government of India, sympathetically reviewed the general situation at some length, but suggested "further consideration of the intricate and delicate issues" before committing the Imperial Council to the recommendation embodied in Sir Gangadhar Chitnavis' Resolution. The Resolution was accordingly withdrawn. Sir Guy Fleetwood Wilson's very able speech will repay careful study.

### Tariff Reform League's Views.

Some idea of the direction in which a scheme of inter-imperial Preferential Trade would tend, so far as India is concerned, may be gathered

from the following extract from the official Handbook of the Tariff Reform League:—

"Preference would mean to India that the United Kingdom and the Colonies would give free entry to Indian tea, coffee, sugar, wheat, and all Indian staple products; and it would mean to us that the Indian import duty on a large number of British manufactures would be either abolished or reduced."

The fact that India produces more wheat than any other part of the Empire, and more tea, coffee, sugar, cotton, jute, indigo and other dye-stuffs, oil-seeds, undressed leather and cordage than all the rest of the Empire put together, makes India's position in any Imperial scheme of Preferential Trade one of paramount importance to all who aim at the progressive development of the Empire's Tariff Systems.

### Industrial Expansion needed.

One of India's important needs and legitimate ambitions at the present day is industrial expansion (1) to relieve her congested agricultural industries, (2) to provide further occupations for those located in districts liable to rain failure, and (3) to create a variety and multiplicity of swadeshi commercial undertakings and home markets suitable and profitable for Indians of all tastes, capacities, and races. These needs and ambitions can be met by modifications of the Indian Customs Tariff which, whilst not adversely affecting British interests, would materially assist India's foreign and internal trade. Thus, the manufacture in India of sugar, shawls, cotton, goods of low qualities, steel, metal work, enamelled ware, carpets, lace, pottery, indigo, glassware, oil, vegetable and mineral, toys, perfumes, pencils, lamps, etc., none of which are supplied in large quantities by the United Kingdom, could be encouraged by a scientific adjustment of the Indian Tariff. With regard to Indian export, Great Britain could give encouragement to India's wheat, jute, indigo, tea, coffee, tobacco, etc., whilst Foreign nations could be approached with confidence if India possessed retaliatory powers with regard to her tariff. Russia's preference for Chinese tea, for example, might be modified if India's regard for Russian petroleum were restricted. So, too, Germany's discrimination with regard to manufactured jute, cleaned rice, etc., might be met by an Indian discrimination with regard to German manufactures. The United States and France might be similarly considered; and all without the slightest risk to Indian or British commercial interests.

### Protection must come.

These considerations bring us to the conclusion that India has much to gain economically and politically, and little or nothing to lose by proceeding a step further in the development of her Tariff. As the late Sir Edward Law pointed out, "it is the natural desire of the great protectionist countries of the world to keep the peoples of India in the position of hewers of wood and drawers of water for their (i.e. foreign nations') manufacturers. Ought such a situation to be tolerated when we hold the re-

medy in our own hands? Can we expect the people of India to accept it with equanimity? Obviously, not. It is sometimes thought by rigid free traders in the United Kingdom that England can continue indefinitely to impose her free-imports policy on India. This is a grave misapprehension. Sooner or later, probably sooner, India's tariff will have to be modified in accordance with the views of India's industrial and political leaders. Those views unanimously favour protection for India's young but growing industries, protection against all competition if possible, but in any case, protection against the competition of those foreign countries who handicap or exclude the importation of India's manufactured products.

### INDIAN COTTON DUTIES ACT.

The origin of this fiscal measure dates back to 1894 when the embarrassment caused to the finances of India by the fall in exchange drove the Government of India to the necessity of adopting measures to increase their sources of revenue. Among these measures was the re-imposition of the Customs Tariff which had been in force prior to 1882 subject, however, to this difference that cotton yarns and fabrics, which had formerly been subjected to an import duty, were in 1894, excluded from the list of dutiable articles. This partial re-imposition of import duties had been recommended by the Herschell Commission which, in reporting in 1893 on the currency question, had favoured this method of adding to the revenue as being the least likely to excite opposition. In point of fact, however, this recommendation which was carried into effect in the Indian Tariff Act of March 1894 gave rise to very marked opposition. In support of their policy the Government appealed to the Resolutions passed in 1877 and reaffirmed in 1879 by the House of Commons, the first of which had condemned the levy of import duties on cotton fabrics imported into India as "being contrary to sound commercial policy," while the latter called upon the Government of India to effect "the complete abolition of these duties as being unjust alike to the Indian consumer and to the English producer." It was, however, an open secret that the decision to exclude from the list of dutiable articles cotton yarns and fabrics was not the decision of the Government of India but that of the Secretary of State. It was pertinently pointed out that the volume of trade in cotton goods and yarns then represented nearly one-half of the total imports from abroad, and that the exemption of these important commodities single other important commodities when practically every single other commodity was being subjected to an import duty could not be justified on its merits as a sound fiscal measure, much less when it was an admitted fact that the Budget would still show a deficit.

**Excise Duties Imposed.**—The opposition to this measure, though it failed to secure its rejection in the Legislative Council, was strong enough to induce the Secretary of State to reconsider the matter. Yielding to the united representations of the Government of India and of Indian public opinion, His Majesty's Government eventually agreed to the re-imposition of import duties on cotton yarns and fabrics provided that it could be shown that such a measure was necessitated by the position of Indian finances, and that it was combined with an Excise duty which would deprive the import tax of any protective character. Accordingly in December 1894, consequent on the further deterioration in the financial position, two bills were introduced in the Legislative Council. The first of these subjected cotton yarns and

fabrics to the general import duty of 5 per cent. ad valorem. The second imposed an Excise duty on all cotton yarns of 20's and above produced by Mills in British India. In introducing this latter Bill the then Finance Minister, Sir James Westland, was careful to explain that the policy underlying its provisions had been imposed on the Government of India by the Secretary of State in pursuance of the Resolution of the House of Commons quoted above. The provisions of this particular Bill are of little interest. From the first it was recognised that they were impractical. Lancashire and Indian spinners disagreed as to the point at which the line should be drawn exempting Indian yarns from the Excise Duty. Practical difficulties were pointed out by Indian spinners as to the impossibility of spinning precisely to a particular count. From the Lancashire point of view it was contended that the Bill offered facilities for evasion while it was admitted that under the system adopted in the Bill, the taxation of Indian and Lancashire products was not being carried out on a similar basis.

**Act of 1896.**—The Act was in fact doomed to be short-lived, and in December 1895 the Government of India were compelled to reconsider the whole position and to introduce an entirely new measure which became law in January 1896 as the Indian Cotton Duties Act II of 1896. This measure proceeded from two conclusions, namely, that no attempt should be made to obtain any duty from yarns whether imported or locally manufactured, and that an equal rate of duty should be applied to all woven goods whether imported or of Indian origin. With the object of conciliating the opposition, the rate of duty was fixed at 31 per cent as opposed to the general rate of Customs duty of 5 per cent. The main provisions of the Act provided that the assessment for the purposes of collecting the Excise duty should be based on returns submitted by the mill-owners; and that provision should be made for a rebate in the case of woven goods exported out of India. No control beyond a requirement that statistical returns should be furnished was attempted in respect of spinning mills. On the other hand certain concessions in the matter of import duty on Mill stores were made by executive order so as to place Indian Mills on a footing more or less equal to their Lancashire competitors.

**Criticisms of the Measure.**—It is not possible within the limits of the present article to do more than summarise the criticisms with which this measure was received in India. Much of the opposition was based on grounds of a transient character; as for instance that the Indian industry was then in a state of continued depression and that it had been hard hit, particularly in respect of its export trade, by

the currency legislation, and by the uncertainty as to the fiscal policy of Government. In some quarters objection was offered to the exemption of yarn, which it was alleged, would place the Indian hand weaving industry at an advantage with the Indian power weaving industry. But the hostility to this measure, as also to the earlier measures already described, clearly proceeded from the feeling that the policy of the Government of India and of the Secretary of State had been dictated by Lancashire, and that the action of Lancashire was due not so much to the fact that there was any real competition between Indian and Manchester goods, but to a desire to handicap the Indian industry whose progress was already causing uneasiness to Lancashire interests. It was argued that the imports from Lancashire were practically all of the higher counts, which, for climatic and other reasons, Indian mills could not produce; that in any case the advantage to the Indian millowner of the import duty was inconsiderable and was counterbalanced by certain drawbacks, arising from the inferiority of Indian labour, which could not be overcome; and that this advantage, such as it was, could scarcely be said to have a protective character, in view of the higher cost of initial equipment in the case of an Indian mill which has to import its machinery, and of working expenses consequent on the scarcity of skilled labour and on the necessity of importing stores required in the production of cloth. Finally, from the standpoint of the consumer, very severe criticism was directed against the reduction, in favour of imported cotton goods, of the general rate of duty from 5 per cent. to 3½ per cent. on the ground that the effect of the legislation would relieve the richer classes who were consumers of the finer Manchester fabrics and impose new taxation on the poorer classes whose requirements were met by the Indian mills.

**New Factors in the Situation.**—Since the passing of this measure into law the policy of the Government of India in this respect has frequently been the subject of attack in the press and in the Legislative Councils while it has also formed the subject of continued representations by the industrial interests affected and political organizations. In more recent years the agitation in favour of the abolition of the Excise duties has been revived by the growth in England of a strong body of public opinion in opposition to the policy of Free Trade. Advantage has been taken of this new phase in English economic thought to press on behalf of India the acceptance of a policy of Protection and the removal of the Excise duties is now claimed by the opponents to this measure as a necessary corollary of the application to the British Empire of the principles associated with the name of Mr. Chamberlain. A new factor in the situation which has strengthened the position of those who are in opposition to the Excise duties is to be found in the severe competition which Indian mills have to face in China as well as in India from the Japanese industry. The Japanese market was lost to India in the early years of this century. More recently, however, Japan has entered as a competitor with India into the China market, while within the last few years it has pushed its advantage as against the

Indian millowner in the Indian market itself. Again it is claimed that the recent enhancement of the silver duty has materially affected the position of the Indian spinner who relied on the China market. On two occasions within the last five years the question of Excise duties has come prominently to the front as a result of debates in the Viceroy's Council. The official attitude is firmly based on the position that the Excise duties stand and fall with the import duties. Against such an attitude all arguments based either on the advantages of a Protectionist as opposed to a Free Trade policy or on the handicap to which the present system exposes the Indian millowner can, of course, make no head way. The Government of India are confronted with a heavy recurring loss in their revenues as a result of the abolition of the opium traffic. The import duties on cotton piece-goods represent nearly fifteen per cent. of the total revenue collected as Customs duty while the Excise duty itself realised no less than 47 lakhs in 1912-13. The strength of the arguments which support the Government position is so patent that the movement in favour of the total abolition of the Excise duty is gradually giving way to a feeling that a solution may be found in maintaining the Excise duty at its present rate while enhancing the import duties to the level of the general rate of Customs duty. This policy, which is frankly of a protective character, can to some slight extent be supported by the change in the position of Lancashire in respect of the imports of cotton piece-goods. In 1894 when the duties were first imposed the share of Lancashire was no less than 98 per cent. of the total import trade in piece-goods. Foreign competition, notably from Japan, has reduced its share to 91 per cent. and it may be expected that the success of this attack on the position of Lancashire will in the near future loom largely in the arguments of those who favour a modified form of protection within the Empire.

**Statistics of the Industry.**—The main statistical features of the industry may briefly be referred to in illustration of the effects of the legislation discussed above. The total production of yarn in Indian mills has risen from an average in 1896-1900 of 443 million lbs. to 590,000,000 yds. of which 161,000,000 were exported. In the lower counts the increase has been from 423 to 531,000,000 yds., counts above 25 having increased from 20,000,000 yds. to 59,000,000 yds. On the other hand, the imports of yarn from the United Kingdom representing about 6 per cent. of the total production in British India have fallen from 45,000,000 yds. to 37,000,000 yds. of which 35,000,000 are of counts above 25. The number of spindles has increased from 3½ millions in 1894-95 to just over 6 millions in 1911-12.

The development of weaving has been even more marked. Looms numbered, in 1911-12, 81,899 as against 31,628 in 1894-95 while the production of cloth which averaged just under 92,000,000 yds. in 1896-97 has advanced to 266,644,000 yds. representing over 1,138,000,000 yds. Grey goods represent about three-fourths of this total. The Excise duty which was estimated on the introduction of the Act of 1896 to yield 14 lakhs, yielded in 1912-13, 47 lakhs,

## The New Capital.

The transfer of the capital of India from Calcutta to Delhi was announced at the Delhi Durbar on December 12, 1911. The reasons for it were stated in despatches between the Government of India and the Secretary of State published at the time. It had long been recognised as necessary, in the interests of the whole of India, to de-provincialise the Government of India, but this ideal was unattainable as long as the Government of India was located in one Province, and in the capital of that Province—the seat of the Bengal Government—for several months in every year. It was also desirable to free the Bengal Government from the close proximity of the Government of India which had been to the constant disadvantage of that Province. To achieve these two objects the removal of the capital from Calcutta was essential: its disadvantages had been recognised as long ago as 1868, when Sir Henry Maine advocated the change. Various places had been discussed as possible capitals, but Delhi was by common consent the best of them all. Its central position and situation as a railway junction, added to its historical associations, told in its favour; and, as Lord Crewe said in his despatch on the subject, "to the races of India, for whom the legends and records of the past are charged with so intense a meaning, this resumption by the Paramount Power of the seat of venerable Empire should at once enforce the continuity and promise the permanency of British sovereign rule over the length and breadth of the country."

The foundation stones of the new capital were laid by the King Emperor on December 15, 1911, when His Majesty said:—"It is my desire that the planning and designing of the public buildings to be erected will be considered with the greatest deliberation and care so that the new creation may be in every way worthy of this ancient and beautiful city." Subsequently a town-planning committee was appointed—consisting of Captain G. S. C. Swinton, Chairman, and Mr. J. A. Brodie and E. L. Lutyens, members—to advise on the choice of a site for, and the lay-out of, the capital. With this was afterwards associated Mr. V. Lanchester. The terms of their original engagement (subsequently renewed) were stated by the Under Secretary of State to be:—"The members of the committee will receive their travelling and living expenses, and the following fees for a five months' engagement:—Captain Swinton, 500 guineas; Mr. Brodie, 1750 guineas; Mr. Lutyens, 1,500 guineas. The Secretary of State has also undertaken to refund to the Corporation of Liverpool the amount of Mr. Brodie's salary for the period of the absence."

**Delhi and its environs.**—In their first report, dated from Simla, 13th June 1912, the Committee explain that, in dealing with the choice of a site, they felt that the following considerations were paramount and must receive the closest and most continual attention:—(a) Health and sanitation, (b) water-supply and irrigation supply, (c) the provision of ample room for expansion, (d) An extent of land suitable for the location of buildings

of various characters and sizes and for the provision of spacious parks and recreation grounds.—To be assumed at 10 square miles for the new city and 15 square miles for the Cantonment.—(e) Cost of land and the cost of executing necessary works on different sites, (f) facility for external and internal communication, (g) Civil and Military requirements.

On the east of the Jumna they found no suitable site. To the north of Delhi, on the west of the Jumna, where the Durbar camps were pitched they found some general advantages. The area is, for example, upwind and upstream from the present city of Delhi. The ruins and remains of the Delhis of the past do not cumber the ground. While the external communications might need improvement, the tract is fairly well served by existing railways. Roads and canals and the internal communication could be made convenient without excessive expenditure, and a good deal of money has already been spent on the area. But its disadvantages were found to be overwhelming. The site is too small and much of the land is liable to flooding. Similarly, the western slope of the hills to the south of Delhi the Naraina plain was found unsuitable, mainly because it cannot be considered to be Delhi, is destitute of historical associations, and is shut out from all view of Delhi.

**Southern site chosen.**—The Committee finally selected a site on the eastern slopes of the hills to the south of Delhi, on the fringe of the tract occupied by the Delhis of the past. They describe it as follows:—"Standing a little to the Delhi side of the village of Malcha, just below the hills almost in the centre of the site, and looking towards the Jumna, Shah-jahan's Delhi on the left fills the space between the ridge and the river. Following down from the present city on the foreshore of the riverain Firoz Shah's Delhi, the site of Indra Prastha, Humayun's fort, Humayun's tomb and Nizamuddin's tomb take the eye in a continuous progress to the rocky eminence on which Ghiyasuddin Tughlak erected his fortress city. On the right the Lal Kot, the Kutb, the Kila Rai Prithora, Siri and Jahanpanah complete the circle of the monuments of ancient Delhis. The mid space in the fore ground is filled by Safdar Jau's Mausoleum and the tombs of the Lodi dynasty, while to the left, towards Delhi, Jey Singh's gnomons and equatorial dials raise their fantastic shapes." "The land chosen is free from liability to flood, has a natural drainage, and is not manured. It is not cumbered with monuments and tombs needing reverent treatment, and the site is near the present centre of the town of Delhi."

**Healthiness of Site.**—In February, 1913, a Committee consisting of Surg-General Sir C. P. Lukis, Mr. H. T. Keeling, A.M.I.C.E., and Major J. C. Robertson, I.M.S., was appointed to consider the comparative healthiness of the northern and southern sites. Their report, dated 4th March, 1913, states that "the Committee, after giving full consideration to the various points discussed in the above note, is bound to advise the Government of India that no doubt can exist as to the superior



healthiness of the southern site, the medical and sanitary advantages of which are overwhelming when compared with those of the northern site."

**Report on Northern Site.**—In the same month the Town-Planning Committee presented their second report, which dealt with the northern site. This had been elicited by the fact that in December, 1912, Sir Bradford Leslie, an engineer with a distinguished Indian career, had read a paper before the Indian section of the Royal Society of Arts in London, in which he set forth plans for building the new capital on the northern site and producing a fine water effect by a treatment of the river Jumna. This paper aroused considerable attention in England; and its publication synchronised with some letters and articles in the press in India expressing a preference for the northern site. The latter voiced a natural attraction to the north site which the Committee themselves experienced on their first visit to Delhi, and enunciated some predilections which the Committee had at one time felt and later abandoned. The Town Planning Committee, therefore, undertook to review once more, and in greater detail, the arguments for and against the northern site. They came to the conclusion that:—"The soil is poor on the northern site as compared with the southern. The southern site is already healthy and has healthy surroundings. The northern site even after expenditure on sanitary requirements will never be satisfactory. If the northern site is to be made healthy, this involves going outside the site itself and making the neighbourhood healthy also. The building land to the south is generally good. On the north to be used at all it has in places to be raised at considerable cost. There is no really suitable healthy site for a cantonment in proximity to a city on the northern site. The exigencies of fitting in the requirements to the limited area of the northern site endanger the success of a lay-out as a whole and tend to make for cramping and bad arrangement. The result of placing a city on the northern site appears to the Committee to be the creation of a bad example in place of a good one."

**Final Town-Planning Report.**—The final report of the Town-Planning Committee, with a plan of the lay-out, was dated 20th March, 1913. The central point of interest in the lay-out, which gives the motif of the whole in Government House, the Council Chamber and the large block of Secretariats. This Government centre has been given a position at Raisina hill near the centre of the new city. Advantage is taken of the height of this hill and it is linked with the high ground behind so as to appear a spur of the ridge itself. Behind the hill a raised platform or forum would be built. This will be flanked by the large blocks of Secretariat buildings and terminated at its western end by the mass of Government House and the Council Chamber, with its wide flight of steps, portico and dome. The forum will be approached by inclined ways with easy gradients on both its north and south sides. The main access to it is from the last. The axis of the main avenue centres on the north-west gate of Indrapat nearly due east of Government House.

Looking from the eastern end of the forum where the broad avenue enters the Governmental centre and where the great stairways are set, the view is towards the east. "Right and left the roadways go and weld into one the empire of to-day with the empires of the past and unite Government with the business and lives of its people."

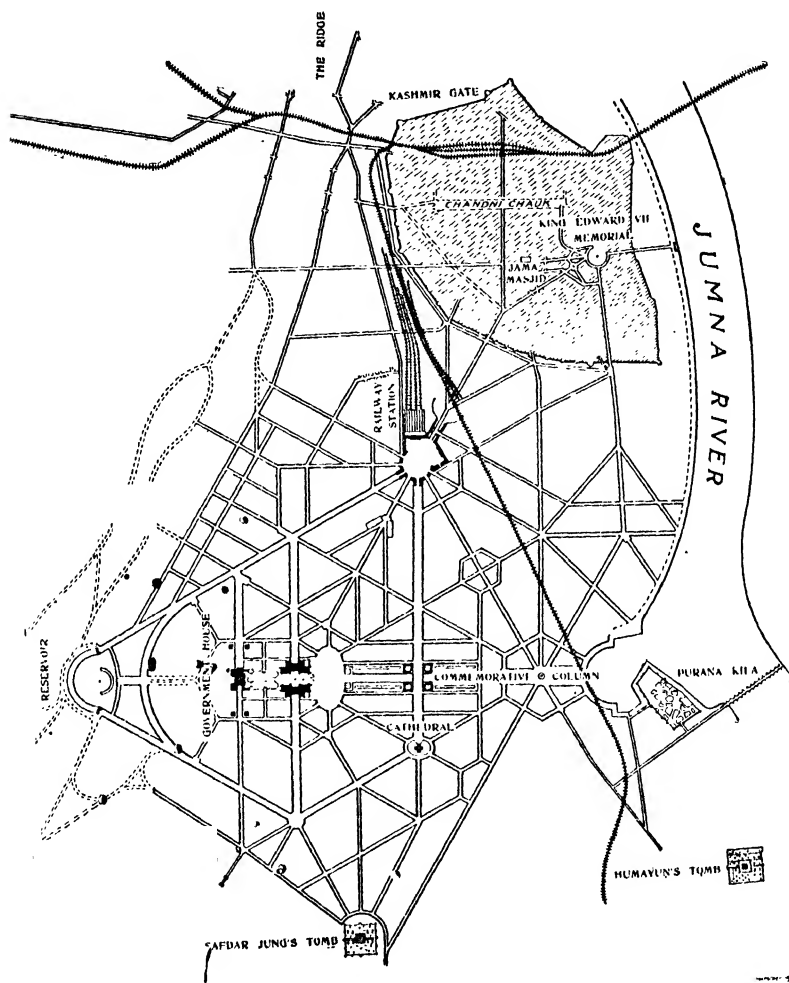
Behind Government House to the west will be its gardens and parks flanked by the general buildings belonging to the Viceregal estate. Beyond these again, on the ridge itself, will be a spacious amphitheatre to be made out of the quarry from which much of the stones for roads and buildings may be cut. Above this and behind it will lie the reservoir and its tower which will be treated so as to break the sky line of the ridge. To the east of the forum, and below it, will be a spacious forecourt defined by trees and linked on to the great main avenue or parkway which leads to Indrapat. Across this main axis, and at right angles to it, will run the avenue to the railway station. This will terminate in the railway station, the post office and business quarters at its northern end, and in the Cathedral at its southern extremity.

To the south-east will lie the park area in which stand the ancient monuments of Sadfar Jang's Makhbara and the Lodi tombs. This area can be developed gradually as the city expands and has need of public institutions of various kinds. The axis running north-east from the Secretariat buildings to the railway station and towards the Jama Masjid will form the principal business approach to the present city. At the railway station a place will be laid out around which will be grouped the administrative and municipal offices, the banks, the shops and the hotels. On this place the post office is placed in symmetrical relation to the railway station.

The processional route will lead down from the railway station, due south to the point where it is intersected by the main east to west axis. Here round a place will be gathered the buildings of the Oriental Institute, the Museum, the Library and the Imperial Record Office. To the south-west of the railway station will lie the houses of the local administration and the residences of the European clerks.

Due south of the forum the residence of the Commander-in-Chief will be placed. Round about the Viceregal estate and the forum lies the ground destined for the residences of the Members of Council, the Secretaries and other officials of the Government of India. To the south-west of Government House lies the club. To the south of the club a low ridge divides the tract into two portions. That to the west is well adapted for a golf-course, while the eastern side is designed for a race-course, the ridge itself offering unusual facilities for locating stands and seeing the races.

**Communications.**—The avenues range from 300 feet to 60 feet with the exception of the main avenue east of the Secretariat buildings where a parkway width of 440 feet has been allowed. The principal avenues in addition to the main avenues are those running at right angles to the main east to west axis.



Others form part of a system running from the amphitheatre to the railway station and Commander-in-Chief's residence, and from both the latter to the commemorative column, lying on the axis between Indrapat and Government House is the focal point of the roads and avenues on the parkway.

A lake which can be obtained by river treatment is shown on the plan. The lay-out has been made independent of the water effect, but the Committee think that its ultimate creation will enhance enormously the beauties and general amenities of the new capital: and it should and would become an integral portion of the design now submitted.

The report contains lengthy recommendations concerning water-supply, drainage, sewage system, parks and communications. It is imperative, it says:—"that a complete scheme of railway arrangements designed to serve the whole of the capital, both old and new, should be an essential feature of the lay-out of the Imperial City, and this important matter should not be left to be settled when it is too late to deal with it." But the expense of the proposed central station is prohibitive, and for some time it will be possible only to carry out that scheme in part, room being left for the later development of the station.

**Style of Architecture.**—The controversy over the sites has been excelled in keenness by a prolonged discussion as to the style of architecture to be adopted in the chief buildings of this city. It has been urged on the one hand that a European style should be adopted to symbolise British Rule in India, and on the other that here is a rare chance for showing British sympathy with Indian ideals by selecting Indian master builders to create an Indian capital. The result is likely to be a compromise between these two extremes, though every encouragement is to be given to Indian craftsmen and builders.

For the temporary accommodation of the Government of India during the five years the building of the new capital is expected to occupy, an area has been selected along the Alipur Road, between the present civil station of Delhi and the Ridge. The early plea that many of the officials should live under canvas had to be given up, and there are now temporary offices and residences. The architecture and method of construction are similar to those adopted in the exhibition buildings at Allahabad in 1910; but the buildings are expected to outlast the transitional period for which they are intended. They will subsequently be an asset of some value, the site they occupy becoming a suburb of the capital.

**Chief Commissioner Appointed.**—On October 1, 1912, by proclamation, there was constituted an administrative enclave of Delhi under a Chief Commissioner, Mr. W. M. Hailey,

I.C.S. The Delhi district of the Punjab, from which this enclave was entirely taken was consisted of three tahsils or subdivisions and the enclave was formed by the central tahsil, that of Delhi, and by such part of the southern tahsil, Ballabgarh, as was comprised within the limits of the police post of Mahrauli. The Delhi tahsil has an area of 429 square miles and the police post serves a hilly area of 128 square miles, bringing up the total extent of the enclave to 557 square miles. On the basis of the last Census figures the population of this area is some 392,000, of whom close upon 233,000 are within the municipal limits of Delhi City.

**Cost of the Scheme.**—The only published statement about the estimated cost of new Delhi is a tentative estimate of four millions sterling contained in the Government of India's original despatch. As regards the acquisition of land, the only published statement is that contained in the latest Financial Statement, in which it was estimated that on the revised estimates an amount of about 13 lakhs would have been spent during the year 1912-13 on that purpose. No statement has been made what will be spent during the current year on land acquisition.

**Two Cathedral Schemes.**—On October 2, a letter was published in *The Times* from the Bishop of Calcutta on the provision of a Cathedral at Delhi. He appealed for £50,000 in addition to any grant given by the Government, and quoted in his letter the following statement of approval by the King-Emperor: "I heartily approve of the project to build a Cathedral in the new city of Delhi. I trust that the appeal for the necessary funds may meet with a generous response, so that in due time the capital of India may possess a Cathedral which in design and character will testify to the life and energy of the Anglican Church and be worthy of its architectural surroundings both of days gone by and of those to come." The Indian Church Aid Association have received several contributions towards the building fund for the proposed Cathedral Church, in response to the appeal of the Bishop of Calcutta. Cheques may be sent to the Secretary, Indian Church Aid Association, Church House, Westminster, S. W. and Crossed Lloyds Bank, St. James's Street, S. W.

A Roman Catholic Cathedral is also projected and Father Paul Hughes, O.M.C., has been touring India collecting money for the Cathedral Fund. According to the *Examiner*, "the erection of a Catholic Cathedral in Delhi will be an epoch in Indian history, whose issues it is difficult to forecast—so fraught are they with big contingencies—and the projected sanctuary ought to be of a magnificence in keeping with the Imperial ideals we cherish for a converted continent."

## The Press in India.

The newspaper Press in India is an essentially English institution and was introduced soon after the task of organising the administration was seriously taken in hand by the English in Bengal. In 1773 was passed the Regulating Act creating the Governor-Generalship and the Supreme Court in Bengal and within seven years at the end of the same decade, the first newspaper was started in Calcutta by an Englishman in January 1780. Exactly a century and a third has elapsed since, not a very long period certainly, a period almost measured by the life of a single newspaper, *The Times*, which came into existence only five years later in 1785; but then the period of British supremacy is not much longer, having commenced at Plassey, only twenty-three years earlier. Bombay followed Calcutta closely, and Madras did not lag much behind. In 1789 the first Bombay newspaper appeared, *The Bombay Herald*, followed next year by *The Bombay Courier*, a paper now represented by the "Times of India" with which it was amalgamated in 1861. In Bombay the advent of the press may be said to have followed the British occupation of the island much later than was the case in Calcutta. In Calcutta the English were on suzerainty before Plassey, but in Bombay they were absolute masters after 1665, and it is somewhat strange that no Englishman should have thought of starting a newspaper during all those hundred and twenty-five years before the actual advent of *The Herald*.

The first newspaper was called *The Bengal Gazette* which is better known from the name of its founder as *Hicky's Gazette* or *Journal*. Hicky like most pioneers had to suffer for his enterprising spirit, though the fault was entirely his own, as he made his paper a medium of publishing gross scandal, and he and his journal disappeared from public view in 1782. Several journals rapidly followed Hicky's, though they did not fortunately take his bad example. *The Indian Gazette* had a career of over half a century, when in 1833 it was merged into the *Bengal Harkarn*, which came into existence only a little later, and both are now represented by *The Indian Daily News* with which they were amalgamated in 1866. No fewer than five papers followed in as many years, the *Bengal Gazette* of 1780, and one of these, *The Calcutta Gazette*, started in February 1784, under the avowed patronage of Government, honours still as the official gazette of the Bengal Government.

From its commencement the press was jealously watched by the authorities, who put serious restraints upon its independence and pursued a policy of discouragement and rigorous control. Government objected to news of apparently the most trivial character affecting its servants. From 1791 to 1799 several editors were deported to Europe without trial and on short notice, whilst several more were censured and had to apologise. At the commencement of the rule of Wellesley, Government promulgated stringent rules for the public press and instituted an official censor to whom everything was to be submitted before publication, the penalty for offending against

these rules to be immediate deportation. These regulations continued in force till the time of the Marquis of Hastings who in 1818 abolished the censorship and substituted milder rules.

This change proved beneficial to the status of the press, for henceforward self-respecting and able men began slowly but steadily to join the ranks of journalism, which had till then been considered a low profession. Silk Buckingham, one of the ablest and best known of Anglo-Indian journalists of those days, availed himself of this comparative freedom to criticise the authorities, and under the short administration of Adam, a civilian who temporarily occupied Hastings's place, he was deported under rules specially passed. But Lord Amherst and still more Lord William Bentinck were persons of broad and liberal views, and under them the press was left practically free, though there existed certain regulations which were not enforced, though Lord Clare who was Governor of Bombay from 1831 to 1835, once strongly but in vain urged the latter to enforce them. Metcalfe who succeeded for a brief period Bentinck, removed even these regulations, and brought about what is called the emancipation of the press in India in 1835, which was the beginning of a new era in the history of the Indian press. Among papers that came into being, was the *Bombay Times* which was started towards the close of 1833 by the leading merchants of Bombay, and which in 1861 changed its name to the *Times of India*.

The liberal spirit in which Lord Hastings had begun to deal with the press led not only to the improvement in the tone and status of the Anglo-Indian press, but also to the rise of the Native or Indian Press. The first newspaper in any Indian language was the *Samachar Darpan* started by the famous Serampore Missionaries Ward, Carey and Marshman in 1818 in Bengal, and it received encouragement from Hastings who allowed it to circulate through the post office at one-fourth the usual rates. This was followed in 1822 by a purely native paper in Bombay called the *Bombay Samachar* which still exists, and thus was laid the foundation of the Native Indian Press which at the present day is by far the largest part of the press in India, numbering over 650 papers.

From 1835 to the Mutiny the press spread to other cities like Delhi, Agra, Gwalior, and even Lahore, whereas formerly it was chiefly confined to the Presidency towns. During the Mutiny its freedom had to be temporarily controlled by the Gagging Act which Canning passed in June 1857 on account of the license of a very few papers, and owing still more to the fears of its circulating intelligence which might be prejudicial to public interests. The Act was passed only for a year at the end of which the press was once more free.

On India passing to the Crown in 1858, an era of prosperity and progress opened for the whole country in which the press participated. There were 19 Anglo-Indian papers at the beginning of this period in 1858 and 25 Native papers and the circulation of all was very small. The number of the former did not show a great

rise in the next generation, but the rise in influence and also circulation was satisfactory. Famous journalists like Robert Knight, James Maclean and Hurris Mookerji flourished in this generation. During Lord Lytton's viceroyalty a reactionary policy was pursued towards the vernacular press which was restrained by a special Act passed in 1878. With the advent of Lord Ripon in 1880, the Press Act of Lytton was repealed in 1882. The influence of the native press especially grew to be very great, and its circulation too received a great fillip. This may be said to have gone on till 1897, when India entered upon a disastrous cycle of years during which plague and famine gave rise to grave political discontent which found exaggerated expression

in the native press, both in the vernacular and in English. The deterioration in the tone of a section of the press became accentuated as years went on and prosecutions for seditious had little effect in checking the sinister influence.

In 1910 Lord Minto passed a Press Act applicable, not like Lytton's Act, to the pecant part alone, but like Canning's measure, to the entire press. This measure is having the desired effect inasmuch as it has undoubtedly checked seditious writing in all the provinces where it had previously been most rife. One marked effect of the Act has been to increase the influence and circulation of the moderate papers. There is some tendency, as in Eastern Bengal, to evade the Act by the secret production and dissemination of seditious leaflets.

Province.	Printing Presses.	News-papers.	Periodicals.	Books.	
				In English or other European Languages.	In Indian Languages (Vernacular and Classical) or in more than one Language.
Bengal .. .. .	606	96	180	469	2,523
United Provinces .. .. .	474	108	102	370	1,727
Punjab .. .. .	274	98	83	48	1,360
North-West Frontier Province ..	20	3	2	....	....
Burma .. .. .	104	45	51	26	402
Central Provinces and Berar ..	84	17	10	24	120
Eastern Bengal and Assam ..	180	44	15	31	503
Ajmer-Merwara .. .. .	9	2	6	1	27
Coorg .. .. .	1	....	1	....	....
Madras .. .. .	583	104	1,169	522	1,880
Bombay .. .. .	416	141	283	87	1,512
Total, 1910-11 ..	2,751	658	1,902	1,578	10,063
{ 1909-10 ..	2,736	720	829	2,112	9,934
1908-9 ..	2,594	738	895	1,687	8,345
1907-8 ..	2,571	753	1,062	1,524	7,095
1906-7 ..	2,400	744	973	1,589	8,120
Totals .. { 1905-6 ..	2,380	747	793	1,411	7,044
1904-5 ..	2,252	713	747	1,321	7,023
1903-4 ..	2,139	709	719	1,294	6,824
1902-3 ..	2,156	657	613	1,384	7,284
1901-2 ..	2,193	708	575	1,312	7,081

## INDIAN PRESS LAW.

The Newspapers (Incitements to Offences) Act, 1908, was passed in view of the close connexion between the perpetration of outrages by means of explosives and the publication of criminal incitements in certain newspapers. The Act deals only with incitements to murder, to offences under the Explosive Substances Act, 1908, and to acts of violence. It gives power in such cases to confiscate the printing press used in the production of the newspaper, and to stop the lawful issue of the newspaper. The procedure adopted in the Act follows the general lines of that provided in the Code of Criminal Procedure for dealing with public nuisances, with the addition that the final order of the magistrate directing the forfeiture of the press is appealable to the High Court within 15 days. It is further provided that no action can be taken against a press save on the application of a Local Government. When an order of forfeiture has been made by the magistrate, but only in that case, the Local Government is empowered to annul the declaration made by the printer and publisher of the newspaper under the Press and Registration of Books Act 1867, and thereafter neither that newspaper nor any other which is the same in substance can be published without a breach of the law.

The Indian Press Act, 1910, was a measure of wider scope, the main object of which was to ensure that the Indian press generally should be kept within the limits of legitimate discussion.

The Act deals, not only with incitements, to murder and acts of violence, but also with other specified classes of published matter, including any words or signs tending to seduce soldiers or sailors from their allegiance or duty, to bring into hatred or contempt the British Government, any Native Prince, or any section of His Majesty's subjects in India, or to intimidate public servants or private individuals.

The different sections of the Act have in view (i) Control over presses and means of publication; (ii) control over publishers of newspapers; (iii) control over the importation into British India and the transmission by the post of objectionable matter; (iv) the suppression of seditious or objectionable newspapers, books, or other documents wherever found.

As regards the first of these objects, it is laid down that proprietors of printing presses making a declaration for the first time under section 4 of the Press and Registration of Books

Act, 1867, shall give security, which may, however, be dispensed with by the magistrate at his discretion; that the proprietors of presses established before the passing of the Act may similarly be required to give security, if and when they are guilty of printing objectionable matter of the description to which the Act applies; and that, where security has been deposited, Local Governments may declare such security forfeit where it appears to them that the press has been used for printing or publishing such objectionable matter. When the initial security so deposited has thus been forfeited, the deposit of further security in a larger sum is required, and a fresh declaration can be made under section 4 of the Press and Registration of Books Act, and, if thereafter the press is again used for printing or publishing objectionable matter the further security deposited and the press itself may be declared forfeit.

Control over publishers of newspapers, the second main object of the Act, is provided for in a similar manner. The keeping of a printing press and the publishing of a newspaper without depositing security when required are punishable with the penalties prescribed for failure to make the declarations required by sections 4 and 5 of the Press and Registration of Books Act, 1867.

Other provisions deal with the cases of books or pamphlets printed out of India or secretly in India. The more efficient control over the importation and transmission by post of objectionable matter of the kind described in the Act is given by empowering the customs and post office authorities to detain and examine packages suspected of containing such matter, and to submit them for the orders of the Local Government.

The fourth object of the Act is attained by authorising the Local Government to declare forfeit any newspaper, book or other document which appears to it to contain matter of the prohibited description, and upon such a declaration the Act empowers the police to seize such articles and to search for the same.

In any case in which an order of forfeiture is passed by the Local Government, an application may be made to the High Court on the question of fact whether the matter objected to is, or is not, of the nature described in the Act. For the most part the object of the Act has been secured, as regards the local press, without recourse to the power of confiscating security.

## Famine in India.

Famine in India is the inevitable accompaniment of economic conditions which leave the bulk of the people dependent on the soil for their means of livelihood. It is intensified, because the produce of the soil over the greater part of India is dependent on a short rainy season, and the rains are erratic and subject to violent fluctuations. It falls with exceptional severity on India because the soil is divided into a multitude of petty holdings, tilled by people without any capital, living for the most part from hand to mouth, and amongst whom credit ceases to exist as soon as the rains fail. In other agricultural countries there are good seasons and bad; but there is none other, with the possible exception of China, where in a famine year millions of acres may not yield so much as a blade of grass, except under artificial irrigation. The conclusion to be drawn from these conditions is that for many years to come India must be susceptible to famine. The shock of famine may be mitigated by the spread of railways, by the development of irrigation, the growth of manufacturing industry, and the improvement of rural credit. There is evidence that all these forces are tending greatly to reduce the social and economic disturbance caused by a failure of the rains. But they cannot entirely remove it.

### Famine under Native Rule.

At one time there was a general tendency to attribute famine in India entirely to the effect of British rule. In the golden age of India, we were told—whenever it may have been—famine was unknown. But India had been drained of its resources of food by the railways, the people had been impoverished by the land revenue demand, and the country as a whole had been rendered less capable of meeting a failure of rains by the "Drain" caused by the Home Charges (*gr*). These fallacies have disappeared under the inexorable logic of facts. A better knowledge of Indian history has shown that famines were frequent under Native rule, and frightful when they came. "In 1630," says Sir William Hunter, in the History of British India, "a calamity fell upon Gujarat which enables us to realise the terrible meaning of the word famine in India under Native rule. Whole cities and districts were left bare of inhabitants." In 1631 a Dutch merchant reported that only eleven of the 200 families at Swally survived. He found the road thence to Surat covered with bodies, decaying on the highway, where they died, there being none to bury them. In Surat, that great and crowded city, he could hardly see any living persons; but "the corpses at the corner of the streets lie twenty together, nobody burying them. Thirty thousand had perished in the town alone. Pestilence followed famine." Further historical evidence was adduced by Sir Theodore Morrison, in his volume on the Economic Transition of India. The "Drain" theory has been exploded. It has come to be seen that whilst railways have checked the old-fashioned practice of storing grain in the villages, they have made the reserves, where they exist, available for the whole of India. In

India there is now no such a thing as a food famine; the country always produces enough food for the whole of the population; famine when it comes is a money famine, and the task of the State is confined to providing the means for those affected by drought to earn enough to buy food. The machinery whereby this is done will be examined after we have seen the experiences through which it was evolved.

### History of recent famines.

The Orissa famine of 1865-67 may be taken as the starting point, because that induced the first great and organised effort to combat distress through State agency. It affected 180,000 square miles and 47,500,000 people. The Bengal Government was a little slow in appreciating the need for action, but later food was poured into the district in prodigious quantities. Thirty-five million units were relieved (a unit is one person supported for one day) at a cost of Rs. 95 lakhs. The mortality was very heavy, and it is estimated that a million people, or one-third of the population, died in Orissa alone. This was followed by the Madras famine of 1866, and the famine in Western India of 1868-70. The latter famine introduced India to the great migration from Marwar, which was such a distinguishing feature of the famine of 1899-1900; it is estimated that out of a total population of a million and a half in Marwar, one million emigrated. There was famine in Behar in 1873-74, then came the great South Indian Famine of 1876-78. This afflicted Madras, Mysore, Hyderabad and Bombay for two years, and in the second year extended to parts of the Central and United Provinces and to a small tract in the Punjab. The total area affected was 257,000 square miles and the population 58,500,000. Warned by the excessive expenditure in Behar and actuated by the desire to secure economy, the Government relief programme was not entirely successful. The excess mortality in this famine is said to have been 5,250,000 in British territory alone. Throughout British India 700,000,000 units were relieved at a cost of Rs. 8½ crores. Charitable contributions from Great Britain and the Colonies aggregated Rs. 84 lakhs.

### The Famine Codes.

The experiences of this famine showed the necessity of placing relief on an organised basis. The first great Famine Commission, which sat under the presidency of Sir Richard Strachey, elaborated the Famine Codes, which, amended to meet later experience, form the basis of the famine relief system to-day. They recommended (1) that employment should be given on the relief works to the able-bodied, at a wage sufficient for support, on the condition of performing a suitable task; and (2) that gratuitous relief should be given in their villages or in poor houses to those who are unable to work. They recommended that the food supply should be left to private agency, except where that was unequal to the demands upon it. They advised that the land-owning classes should be assisted by loans, and by general suspensions of revenue in proportion to the crop failure. In sending a provisional

famine Code to the provincial governments, the Government of India laid down as the cardinal feature of their policy that the famine wage "is the lowest amount sufficient to maintain health under given circumstances. Whilst the duty of Government is to save life, it is not bound to maintain the labouring population at its normal level of comfort." Provincial codes were drawn up, and were tested by the famine of 1896-97. In that 307,000 square miles were affected, with a population of 69,500,000. The numbers relieved exceeded 4,000,000 at the time of greatest distress. The cost of famine relief was Rs.  $7\frac{1}{2}$  crores, revenue was remitted to the extent of Rs.  $1\frac{1}{2}$  crore, and loans being aggregating Rs.  $1\frac{1}{2}$  crore. The charitable relief fund amounted to about Rs.  $1\frac{1}{2}$  crore, of which Rs.  $1\frac{1}{2}$  crore was subscribed in the United Kingdom. The actual famine mortality in British India was estimated at 750,000. The experiences of this famine were examined by a Commission under Sir James Lyall, which reported that the success attained in saving life and the relief of distress was greater than had ever been recorded in famines, comparable with it in severity, and that the expense was moderate. But before the Local Governments had been given time to digest the proposals of this Commission, or the people to recover from the shock, the great famine of 1899-1900 supervened.

#### The Famine of 1899-1900.

This famine affected 475,000 square miles with a population of 59,500,000. In the Central Provinces, Bihar, Bombay, Ajmer, and the Hissar district of the Punjab famine was acute; it was intense in Rajputana, Baroda, Central India, Hyderabad and Katbiawar. It was marked by several distinctive features. The rainfall over the whole of India was in extreme defect, being eleven inches below the mean. In several localities there was practically no rain. There was in consequence a great fodder famine, with a terrible mortality amongst the cattle. The water supply was deficient, and brought a crop of difficulties in its train. Then districts like Gujarat, where famine had been unknown for so many years that the locality was thought to be famine immune, were affected; the people here being softened by prosperity, clung to their villages, in the hope of saving their cattle, and came within the scope of the relief works when it was too late to save life. A very large area in the Native States was affected, and the Marwaris swept from their impoverished land right through Central India like a horde of locusts, leaving desolation in their train. For these reasons relief had to be given on an unprecedented scale. At the end of July 4,500,000 persons were supported by the State, Rs. 10 crores were spent on relief, and the total cost was estimated at Rs. 15 crores. The famine was also marked by a widespread acceptance by Native States of the duty hitherto shouldered by the Government of India alone—the supreme responsibility of saving human life. Aided by loans to the extent of Rs.  $3\frac{1}{2}$  crores, the Native States did a great deal to bring their administration into line with that in British India. Although actual deaths from starvation were insignificant, the extensive outbreaks of cholera, and the devastating epidemic of

malaria which followed the advent of the rains, induced a famine mortality of approximately a million. The experiences of this famine were collated by the Commission presided over by Sir Antony MacDonnell. This Commission reported that taking the famine period as a whole the relief given was excessive, and laid down certain modified lines. The cardinal feature of their policy was moral strategy. Pointing out that if the people were assisted at the start they would help themselves, whilst if their condition were allowed to deteriorate it proceeded on a declining scale, they placed in the forefront of their programme the necessity of "putting heart into the people." The machinery suggested for this purpose was the prompt and liberal distribution of tagal loans, the early suspension of revenue, and a policy of prudent boldness, starting from the preparation of a large and expansive plan of relief and secured by liberal preparations, constant vigilance, and a full enlistment of non-official help. The wage scale was revised; the minimum wage was abolished in the case of able-bodied workers; payments by results were recommended; and proposals were made for saving cattle.

#### Success of the new policy.

The effectiveness of this machinery was partly demonstrated during the three lean years which followed the great famine in the Bombay Presidency. But it received its most conspicuous demonstration when the rains failed in the United Provinces in 1907-08. Moral strategy was practiced here on an unprecedented scale, tagal loans being granted with the greatest liberality. The effect of these measures was succinctly indicated by the Lieutenant-Governor of the United Provinces, Sir John Hewett, in a speech in summarising his administration prior to his departure in England in March 1912. He showed that in the autumn harvest of 1907 there was a shortage of 4 million tons of foodgrains and in the spring harvest a shortage of 3 million tons, giving a total of seven million tons, or the food supplies for the Province for nine months and an economic loss of £38 million pounds. The Government advanced £1½ million to cultivators for temporary purposes and large sums for wells and permanent irrigation. The whole of this sum was repaid except fifty-four thousand pounds remitted owing to a second bad season and twenty-five thousand pounds then outstanding. By common consent a great famine had never been met with less loss and suffering to the people, and two years later hardly a trace of it remained. In 1911 the rainfall failed over a considerable area in Gujarat in the Bombay Presidency and again in 1912 in the Ahmednagar District of the Bombay Deccan and both these partial failures demonstrated that the shock of famine is far less severe now, owing to the increased resourcefulness of the people, than it was so late as 1899.

The Government of India is now in possession of complete machinery to combat the effects of drought. In ordinary times Government is kept informed of the meteorological conditions and the state of the crops; programmes of suitable relief works are kept up to date, the country is mapped into relief



circles, reserves of tools and plant are stocked. If the rains fail, policy is at once declared, non-officials are enlisted, revenue suspended and loans for agricultural purposes made. Test works are then opened, and if labour in considerable quantities is attracted, they are converted into relief works on Code principles. Poorhouses are opened and gratuitous relief given to the infirm. On the advent of the rains the people are moved from the large works to small works near their villages, liberal advances are made to agriculturists for the purchase of plough, cattle and seed. When the principal autumn crop is ripe, the few remaining works are gradually closed and gratuitous relief ceases. All this time the medical staff is kept in readiness to deal with cholera, which so often accompanies famine, and malaria, which generally supervenes when the rains break. Recent experiences go to show that never again will the Government of India be compelled to distribute relief on the tremendous scale demanded in 1899-1900. The high prices of produce have given the cultivators considerable resources, the extension of irrigation has protected a larger area, and labour has become more mobile, utilising to the full the increasing industrialism of the country. For instance, in 1911 the rains in Gujarat failed completely, yet there was little demand for relief works, and the necessities of the cultivators were rather for fodder for their cattle than for money or food for themselves. Various schemes are now under consideration for the establishment of fodder reserves in the villages.

#### **Famine Protection.**

Side by side with the perfection of the machinery for the relief of famine has gone the development of famine protection. The Famine Commission of 1880 stated that the best, and often the only means of securing protection from the extreme effects of famine and drought, are railways and irrigation. These are of two classes, productive and protective.

Productive works being estimated to yield profits which will pay interest and sinking fund charges are met from loans; protective works, which do not pay, directly from revenue. In order to guarantee that there should be continuous progress with protective works, the Famine Insurance Grant was instituted in 1876. It was decided to set apart from the general revenues Rs. 1½ crores annually, or one million sterling. The first charge on this grant is famine relief, the second protective works, the third the avoidance of debt. The chain of protective railways is now practically complete. Great progress is being made with protective irrigation. Acting on the advice of the Irrigation Commission (qv) an elaborate programme of protective irrigation works is being constructed, particularly in the Bombay Deccan—the most famine-susceptible district in India—and in the Central Provinces. When these are completed, the shock of drought will be immensely reduced.

#### **The Indian Famine Trust.**

Outside the Government programme there is always scope for private philanthropy, especially in the provision of clothes, help for the superior class poor who cannot accept Government aid, and in assisting in the rehabilitation of the cultivators when the rains break. At every great famine large sums have been subscribed, particularly in the United Kingdom, for this purpose, and in 1899-1900 the people of the United States gave generous help. With the idea of providing a permanent famine fund, the Maharaja of Jaipur gave in 1900 a sum of Rs. 16 lakhs, in Government securities, to be held in trust for the relief of the needy in time of famine. This Trust has now swollen to Rs. 28 lakhs, chiefly from gifts by the founder's family. It is vested in trustees drawn from all parts of India, and is freely used in an emergency. Substantial grants were given for the Bombay relief fund in 1911, and for the relief of the distress in Ahmednagar (Bombay Deccan) in 1912.<sup>3</sup>

## Co-operation in India.

Before the end of the last century the co-operative movement had proved so successful in its attempt at regenerating rural life in countries with such diverse conditions as Germany, Italy, Switzerland, and Ireland, that enthusiasts like Mr. Wolff, social workers like the late General Booth, and Indian administrators like Sir William Wedderburn were anxious to introduce the movement in India to improve the economic and moral conditions of the Indian ryot. More than sixty per cent. of the vast population of India subsists on agriculture and the majority of these millions generally live from hand to mouth. The ryot's occupation is healthy and productive, and he is proverbially honest and straightforward in his dealings, except when years of famine and hardship make him crafty and recalcitrant, as in the Satara and Ahmednagar districts of Bombay Presidency. Owing to his poverty, however, he has to contract heavy debts to meet occasional expenses for the improvement of his land or for ceremonial purposes and he has therefore to seek the assistance of the local money-lender, who is usually a Bania or a Marwari, and is known as the Sowcar or the Mahajan. The rates of interest on such advances vary from province to province and even in different parts of a province. The average rate ruling throughout Bombay Presidency is lower than in most other provinces and there are again variations in the rate in the Presidency itself; it is 6 to 12 per cent. in Gujarat and 12 to 24 per cent. in parts of the Deccan, while it rises to the enormous figure of 50 per cent. in several tracts. In addition to charging these excessive rates the Sowcar extorts money under various pretexts and takes from the needy borrower bonds on which heavy stamp duties are payable. One of the chief causes of the ryot's poverty is that owing to the absence of security and his short-sightedness due to want of education he does not as a rule collect and lay by his savings but fritters away his small earnings in extravagant and unproductive expenditure on the purchase of trinkets and ornaments and on marriage and other ceremonies. In some cases he hoards coins under the ground with the likelihood that on his death the money is lost to his family for good. This absence of thrift and the habit of dependence in case of difficulty on the Government or on the Sowcar are the bane of his life. A Co-operative Society would change all this inasmuch as it would provide him with a suitable institution in which to lay by his savings and would teach him the valuable lesson of self-help through the sense of responsibility he would feel in being its member. Thus the chronic poverty and indebtedness of the Indian agriculturist afford a very good field for the introduction of co-operative methods, especially as his work is of a productive character likely to enable him to earn a better living under circumstances more favourable than they are at present.

**First Scheme Proposed.**—The question of introducing co-operation among the agricultural classes in India was first taken up in the early nineties when Sir W. Wedderburn prepared a scheme of Agricultural Banks which

was approved of by Lord Ripon's Government but was not sanctioned by the Secretary of State. The matter was not again taken up until about fifteen years later when Lord Wellock's Government in Madras deputed one of its ablest officers Mr. F. A. (now Sir Frederick) Nicholson to report on the advisability of starting Land Banks in the Presidency for the relief of the agriculturists. Sir Frederick had prepared himself by a thorough study of Agricultural Banks and Co-operative Societies and had visited many European countries to see for himself the various developments of the co-operative movement. He was also conversant with the special conditions of the Presidency where there had been in existence an institution called the Niddhi, which corresponded in some respects to the Village Popular Banks in European countries. Though these institutions provided cheap local capital to the agriculturists the spirit of co-operation was lacking in them. This want was supplied in early times by the Village Panchayats which showed to what extent communal life and ideas of local self-government had developed in India. Sir Frederick, after thoroughly going into the conditions of the Presidency, submitted an exhaustive report to Government suggesting that the formation of Co-operative Societies was the only method which could conquer agricultural indebtedness. The report surveyed the growth of the co-operative movement in European countries, the conditions favourable to its development in India, if introduced, and the difficulties to be encountered in introducing it and making it a success here. Finally it contained, for the consideration of Government, a draft Bill for the organisation of Co-operative Societies. Sir Frederick pleaded for concessions to be given to the Societies—such as exemption from the income tax and remission of the stamp duty—as he felt that it would be possible to attract the people to the new movement only if Government showed its active sympathy towards it at the commencement. It ended with a fervent appeal to the non-official community “to find a Raiffeisen” who would help the ryots of this country in achieving results equal to those obtained by Raiffeisen's noble efforts in Germany. Unfortunately the report was not received favourably either by the non-official public or by the Government of Madras, and no action was taken on its suggestions.

**Commission of 1901.**—The next few years saw two of the worst famines that India has ever suffered from and in 1901, Lord Curzon appointed a Commission to report on the measures to be adopted in future to prevent famines and to protect the ryot from their ravages. The Commission laid stress on the proper working of the Agricultural Loans, and Land Improvement Acts under which takavi advances are made to cultivators. This system was given a long trial in the years previous to the great famines as well as during the ten years succeeding the 1899-1900 famine. But it is acknowledged on all hands that the system has been a failure, as it is clear that it is not plenty of cheap capital only which will raise the agriculturist and relieve him from his debts,

but capital combined with habits of thrift and self-help, which habits it obviously does not inculcate. The Commission also recommended that the principal means of resisting famines was by strengthening the moral backbone of the agriculturist and it expressed its view that the introduction of co-operation in rural areas was one of those means which would improve his moral fibre.

**Co-operative Credit Societies Act.**—These recommendations induced Lord Curzon to appoint a Committee with Sir Frederick Nicholson at its head to investigate the question and a Report, following the original Madras Report in the main, was submitted to Government. Sir Anthony (now Lord) Macdonell was at the same time making experiments on similar lines in the United Provinces with satisfactory results. All these activities, however, took a practical shape only when Lord Curzon, with his zeal for getting things done which made him famous in India, took up the question in all earnestness and his Government introduced in the Supreme Legislative Council a Bill to provide for the constitution and control of Co-operative Societies. The main provisions of the Bill which became the Co-operative Credit Societies' Act (Act X of 1904) were :—

(1) That any ten persons living in the same village or town or belonging to the same class or caste may be registered as a Co-operative Society for the encouragement of thrift and self-help among the members.

(2) The main business of a Society was to raise funds by deposits from members and loans from non-members, Government and other co-operative societies and to distribute money thus obtained by way of loans to members or, with the special permission of the Registrar, to other Co-operative Credit Societies.

(3) The organization and control of Co-operative Credit Societies in every Presidency were put under the charge of a Special Government Officer called the Registrar of Co-operative Credit Societies.

(4) The accounts of every Society were to be audited by the Registrar or by a member of his staff called the Auditor of Co-operative Credit Societies.

(5) The liability of a member of a Society was to be unlimited in the case of a rural society.

(6) No dividends were to be paid on the profits of a rural society but the profits were to be carried at the end of the year to the Reserve Fund, although when this fund had grown beyond certain limits fixed under the bye-laws, a bonus might be distributed to the members.

(7) In the case of Urban Societies no dividend was payable until one-fourth of the profits in a year were carried to the Reserve fund.

There were a few glaring defects in the Act and these came to be recognised by the official class as the movement progressed.

Soon after the passing of the Act the local Governments in all the Presidencies and major provinces appointed some of their best officers as Registrars with full powers to organise,

register and control the management of societies. In the early stages of the working of this Act Government loans were freely given, especially in the Bombay Presidency, and the response to the organising work of the Registrars was gradual and steady throughout most parts of the country.

**Variety of Societies.**—There was a great variety of types among the societies started in different provinces, and some Registrars adopted the "Schulze-Delitzsch," some the "Raiffeisen," and some the "Luzzatti" methods in their entirety. The best course, as pointed out by Mr. Wolff, would have been to start a few model societies and leave the movement to develop on the lines which most suited the peculiar requirements and conditions of the country. The commonest type was the unlimited liability society with a fee for membership and a small share capital, the share-payments to be made in instalments. In some cases the system insisted on compulsory deposits from members before entitling them to enjoy the full privileges of membership. The Bombay system was entirely different, there being no share-capital but only a membership-fee. Part of the working capital was raised by deposits from members and other local sympathisers but the bulk of it was obtained by loans from Government and other Co-operative Societies. In all the Presidencies the Government set apart every year a certain sum to be advanced as loans to newly-started Co-operative Societies usually up to an amount equal to the local deposits raised by them. This practice, though necessary in the initial stages of the movement as stimulating the placing of deposits with societies, in other cases led to crooked means to secure deposits and sometimes worked as a real hardship in poor districts. In the long run it proved a hindrance to the development of the co-operative spirit by having taught people to expect State aid for every new society. Happily State aid has now become an exception rather than the rule and this withdrawal in no way hampers the growth of the movement on account of the rapid increase of financing agencies, District and Provincial Central Banks—and of public confidence in the Societies.

**Typical Societies.**—The Typical Rural Society in India corresponds to the "Raiffeisen" society, the management being gratuitous, the profits indivisible and the area of work limited. Usually the Secretary, especially if he is, a *bona fide* member of the Society, gets a monthly pay of Rs. 1 to Rs. 5 with a bonus at the end of the year equal to a fourth of the annual profits. In parts of country there are villages where a few literate men may be found but most of these are hardly fit enough to undertake the responsible work of a Secretary, being practically ignorant of account keeping. In these cases either the village school-master or the village accountant, known on the Bombay side as the Kulkarni or Talati, is appointed to the post with a remuneration a little higher than that paid to the Secretary who is a *bona fide* member. In some places, where a suitable person is not available on this low pay, neighbouring societies are grouped together with a whole-time, well-paid, and competent Secretary,

This arrangement, which has its advantages, involves the drawback that the outsider working as Secretary does not naturally feel as much interest about the Society's working as a *bona fide* member does.

**Management.**—The Managing Committee consists of 5 to 9 intelligent members of the Society, the Chairman being usually the leading person in the village. The daily work of the Society is carried on by the Secretary, but the Managing Committee supervises his work and has alone the power to admit new members, to receive deposits, arrange for outside loans, grant loans to members and take notice of defaulters. The accounts of the Society are kept by the Secretary and the necessary forms, papers, and books are supplied from the Registrar's office to simplify the work of the Secretary. They are kept according to the rules framed by the local governments and are open to inspection by important local officials and the Registrar and his staff. They are audited, at least once a year, by the Auditor of Co-operative Societies and inspected from time to time by specially appointed Inspectors. The loans are mostly given on the security of two co-members, or, rarely, on the simple

bond of the borrower, but mortgages are taken occasionally, especially in the case of long-term loans and loans for the liquidation of old debts. This feature is noteworthy as real credit is not quite compatible with the true spirit of co-operation. At the Annual General Meeting, held within a month of the close of the Co-operative year the accounts are submitted, the balance-sheet passed and a new Managing Committee with, if necessary, a new chairman and Secretary is elected. As these meetings are informal other local topics of public utility are sometimes discussed. All the net profits of the Society are annually carried to the Reserve Fund which most societies utilise as an addition to their ordinary working capital. Steps are being taken in some parts of the country to stop this practice and to insist on the Reserve being kept entirely apart from the working capital and invested in Government securities or placed as floating deposit in a reliable Central Bank. As, however, the class of people forming a Co-operative Society have not thoroughly grasped the principle of co-operation it is difficult to convince them of the advisability of keeping the Reserve distinct from the Society's ordinary working capital.

**Progress of the Movement.**—The following statement shows the progress in Rural Co-operation up to 31st March 1912.

Province or Presidency.	Number of Societies.	Number of Members.	Total Working Capital. Rs.	Reserve Fund. Rs.	Net Profit during the year 1911-12. Rs.
Madras .. .. .	916	51,986	36,03,468	46,455	67,328
Bombay .. .. .	284	19,247	14,47,118	1,191	36,910
Bengal .. .. .	875	28,776	14,71,670	18,930	89,773
United Provinces .. .. .	1,741	68,981	27,32,301	6,066	57,495
Punjab .. .. .	1,717	89,758	56,31,716	24,033	2,36,730
Burma .. .. .	691	16,821	18,52,043	510	79,915
Bihar & Orissa .. .. .	491	25,482	6,10,717	....	29,977
Assam .. .. .	125	7,855	20,594	1,927	11,039
Central Province .. .. .	540	9,516	3,78,695	11,545	13,066
Coorg .. .. .	22	2,179	78,792	2,764	3,496
Ajmere .. .. .	160	4,259	2,16,947	....	1,860
Total .. .. .	7,562	3,24,860	1,82,20,061	1,14,321	6,27,689

The progress of the movement in different provinces varies according to the activity in organisation work as well as the special conditions of each province—the prevailing rates of interest being the most important of these. The only Native States which have introduced legislation similar to the Co-operative Credit Societies Act in their territories are Mysore and Baroda, and the results of the experiment have been as satisfactory as in British India. The following table exhibits the progress of Co-operative Societies of all classes in these two States up to 31st March 1912—

State.	Number of Societies.	Membership.	Working Capital. Rs.	Reserve Fund. Rs.	Net Profit during the year. Rs.
Mysore .. .. .	218	13,148	6,73,312	18,833	34,836
Baroda .. .. .	124	2,934	2,11,000	23,000	12,000

**Urban Societies.**—Just as rural societies are the means of resuscitating the agricultural and other small village industries, a class of societies called the Urban Societies has grown up in towns and cities for improving the economical and moral conditions of artisans and small traders, members of particular castes and employees of big firms and Government Departments. These societies have usually a limited liability. This is due to the field of their work not being compact as in the case of rural societies where every member may be expected to know every other member. Their constitution is based on the 'Schulze Delitzsch' model and in most cases the management is honorary, though sometimes, when the sphere of a society's work is extended, a paid staff is employed. There is in all societies a substantial share capital, payments being made in instalments, and the rest of the working capital is obtained by local deposits from members and others and loans from Co-operative and Joint Stock Banks. At the end of every year one-fourth of the net profits must be carried to the Reserve Fund and the balance may be distributed as dividend or bonus. There are serious drawbacks in the working of these societies and complaints about them

are noticeable in many of the Registrars' reports for the year 1911-12. The most serious of these complaints are that the spirit of co-operation is lacking in many of Urban Societies, that there is too great a desire to go in for profits and dividends and a growing tendency to make the societies close preserves once they have started on profitable lines. The rates of interest on loans are higher than they ought to be and the men at the head of the societies are loth to admit new members who are in need of loans for fear of the latter cutting down the profits. The Railway Employees' Societies, however, work on sounder lines and provide good instance of the success of Urban Co-operation. A few Mill hands' Societies have been started in the Bombay Presidency but with these the spread of co-operation among the labouring class in industrial cities ends. There are, again, a few societies, on the lines of village Popular Banks of Europe to assist small Urban traders and artisans and some efficient societies comprising members of a community. Some of these Urban Societies after meeting the needs of their members have large balances on hand which they are allowed with the previous sanction of the Registrar, to advance to smaller societies.

**Progress of Urban Societies.**—The following statement shows the progress of Urban Co-operation up to 31st March 1912:—

Province or Presidency.	Number of Societies.	Number of Members.	Total Working Capital.	Reserve Fund.	Net Profit during the year.
Madras .. .. .	47	13,527	7,32,967	8,900	41,741
Bombay .. .. .	75	6,561	5,13,907	2,398	21,188
Bengal .. .. .	61	9,557	8,35,159	3,584	67,373
United Provinces .. .. .	174	28,459	24,28,419	37,129	61,239
Punjab .. .. .	26	2,137	1,12,205	155	6,559
Burma .. .. .	37	2,150	4,03,820	609	26,553
Behar & Orissa .. .. .	39	1,725	59,514	137	4,167
Assam .. .. .	16	1,829	1,92,563	990	10,548
Central Provinces .. .. .	20	1,152	80,743	2,655	4,907
Coorg .. .. .	....	....	....	....	....
Ajmere .. .. .	....	....	....	....	....
Total .. .. .	495	67,097	53,59,297	56,563	2,44,370

**Loans Advanced.**—The total amounts of loans advanced to members by Rural and Urban Societies during the year 1911-12 were Rs. 1,99,23,935 and Rs. 32,88,633, respectively, as against a total of less than Rs. 25 lakhs issued by both these classes of societies in the year 1906-7. Some of the Provincial Reports for the year 1911-12 analyse the purposes for which loans are usually advanced, and it is interesting to observe from the Madras Report, which may be taken as typical, that 41.5 per cent. and 47.5 per cent. of the total amount of loans advanced by the Urban and Rural Societies, respectively, during the year 1911-12 were for paying off prior debts. Only 10.3 per cent. and 1.8 per cent., respectively, of the total amounts of loans made by Urbans and Rurals were for non-productive purposes, including marriage and other ceremonies and litigation. The percentages of loans for productive purposes amounted to 48.2 and 50.7

for the two classes of societies respectively, thus showing that if we include loans for the liquidation of old debts the total amount utilised in productive purposes works out at about 89 per cent. in the case of Urbans and 98 per cent. in that of Rurals, on the loans advanced. These loans include those advanced for cultivation expenses, purchase of live-stock, fodder, seed, manure and agricultural implements, for land improvement and sinking of wells, for purchase of new lands and for maintenance in times of scarcity in the case of rural societies, and those for purchase of raw materials for industries, for trade, for house-building and for food and other necessities of life in the case of the Urbans. The societies are mostly punctual in their repayments to the Government or to Central Banks just as the members of the societies are regular in repaying their loans to the societies.

**Financing Rural Societies.**—As soon as the initial stage of the movement had passed, a very urgent problem faced the co-operators. This was to finance the rural societies that were growing in all directions. And the problem was solved in different provinces according to their special conditions and the stages of development the movement had attained therein. In Madras a Central Bank, which lent to Co-operative Societies in the Presidency, was started without Government aid as early as in 1907. In other Presidencies District Banks were established, gradually finding money for societies within their districts and in some places Joint Stock Banks were persuaded to make advances direct to rural societies or through the medium of District Central Banks. A large number of prosperous Urban Societies, as stated above, could afford to lend to rural societies. Government aid was also freely given and the advances under this head rose from Rs. 2,84,738 in 1906-7 to Rs. 9,34,663 in 1911-12. With the progress of the movement, however, this aid was discontinued and the only province which continued the practice was Bombay—lending Rs. 2,57,439 in 1911-12. An important cause which led to the continuance of State aid in Bombay was the paucity of Central Banks in the Presidency and the refusal of the Commercial Banks, though constantly approached, to help rural societies. When, owing to this unwillingness of the ordinary banks to participate in the movement, the Registrar found it extremely difficult to have even the small number of societies in the Presidency properly financed, Mr Vitthaldas Thackersey and the Hon'ble Mr. Jalubhai Samaldas submitted to Government a scheme to establish a Central Bank for the Presidency provided certain assistance was promised by Government. As a result of the negotiations that followed, the Bombay Central Co-operative Bank was founded in October, 1911, with a share capital of 7 lakhs and with power to issue debentures at 9 per cent. up to three times

the amount of the paid-up share capital, the Government guaranteeing payment of interest on the debentures in case of default. The Bank was authorised to lend only to registered Co-operative Societies in the Presidency with the previous sanction of the Registrar in the case of every individual loan. As an indirect result of the establishment of the Bombay Central Bank a number of District Banks have been started and the Presidency is now as well provided in this respect as any other Province.

**Bombay and Madras Banks.**—The chief point of distinction between the Bombay and the Madras Central Banks—which are both run more on commercial than on pure co-operative lines—is that in the case of the Madras Bank there are no restrictions on the rate of interest on loans and on the dividends, as there are in that of the Bombay Central Bank where restrictions in these respects are imposed by the Bank's agreement with the Secretary of State. Again in the Bombay Central Bank the majority of shareholders are either capitalists or persons not much interested in co-operation whereas the Madras Bank has fortunately attracted more persons who are interested in the movement. Another drawback of these two institutions is that neither of them is a Co-operative Central Bank in the true sense of the term as there are no District Central or Rural Societies that are members of, or affiliated to it and therefore interested in their success. A Provincial Bank with societies affiliated to it is in existence in Upper Burma and another has recently been started in the Central Provinces. But the latter seems to be only a kind of immediate link between the well-managed District Central Banks in the Province and the Commercial Banks in Allahabad and elsewhere.

**Number of Central Banks.**—The following statement shows the number and the constitution of the Central Banks in the country up to 31st March 1912.

Province or Presidency.	No. of Societies.	Number of Members.	Total Working Capital.	Reserve Fund.	Net Profit at end of the year 1911-12.
			Rs.	Rs.	Rs.
Madras .. .. .	9	643	31,27,303	20,748	54,245
Bombay .. .. .	9	3,611	12,47,886	....	32,609
Bengal .. .. .	7	236	3,00,744	558	7,763
United Province .. .. .	31	2,329	20,22,035	19,788	47,988
Punjab .. .. .	26	1,274	15,78,005	2,037	24,140
Burma .. .. .	3	1,129	13,97,778	....	15,549
Behar & Orissa .. .. .	8	414	2,34,881	....	5,250
Assam .. .. .	1	74	91,091	....	4,054
Central Province .. .. .	25	1,468	5,64,155	2,994	9,382
Coorg .. .. .	....	....	....	....	....
Ajmer .. .. .	1	183	2,10,106	229	4,208
<b>Total .. .. .</b>	<b>120</b>	<b>11,361</b>	<b>1,07,73,984</b>	<b>46,354</b>	<b>2,05,188</b>

**Creation of Unions.**—The ordinary types of Central Banks only finance rural societies but unless they form part of the co-operative tree it is felt that the movement will not progress on real co-operative lines. There is also the need for an agency which would not only

provide funds for societies but also supervise over their working, inspect the affiliated societies and even take up the entire educational work now done by the Registrars and not as local organising societies. They may also be expected to supplement, in lieu of a small fee

to be paid by the societies, the auditing work done by the Registrars who now find it very difficult, owing to the increase in the number of societies, to cope with this work with the limited staff at their disposal. This need has been supplied to some extent by the creation of Unions—bodies with limited liability the majority of whose members are registered societies with a small number of well-to-do and public spirited persons as shareholders who supply the necessary educative force and arrange for the proper financing of the Unions. The management of the Union is in the hands of a Board of Directors, or Managing Committee, consisting partly of some representatives of the ordinary shareholders and partly of delegates elected by the societies which are members of the Union. Usually a Union is only possible for the whole of a district, as the personnel necessary for its successful working would be difficult to secure in a smaller area. However, in different parts of the country we notice the existence of Unions for Talukas, and occasionally for smaller tracts comprising groups of societies. The creation of such bodies has been facilitated by the amended Co-operative Societies' Act, which came into force in 1912. Previous to the passing of this Act, Unions were started unsystematically in various Provinces according to local ideas, but their formation has been made uniform by the new Act insisting on a limited liability in the case of a society of which a member is a registered society. In some provinces the ordinary Central Banks serve the purpose of Unions having societies affiliated to them. In Bengal, for example, there are seven Banks of this type with 176 societies and 60 individuals as members and a working capital of Rs. 3,00,744. The Unions started in Bombay correspond to this type, being financing as well as supervising agencies. The other Presidencies have only Supervising Unions, Madras having four with a membership of sixty societies and a working capital of Rs. 1,260-2-9, Burma 43 with 486 members and a working capital of Rs. 5,262, the Central Provinces 4 with a membership of 62 and the United Provinces 4. During 1912-13 a few Unions have been registered in Bombay and their number has increased largely in the other Presidencies.

It may be mentioned that in most of the Provinces the work of organising and looking after the societies is done by the Registrar with the help of his assistants and a few honorary non-official workers. The number of these honorary workers is steadily increasing and in some Presidencies there is a band of specially appointed Honorary Organisers who regularly assist the Registrars. There is, however, scope for organisation Societies on the lines of similar institutions in England and Ireland and if the District Unions are affiliated to a real Co-operative Provincial Bank it may be possible to have an Organisation Department of the Bank with branches in the districts.

**New Act Introduced.**—As co-operation progressed in the country defects were noticed in the Co-operative Credit Societies' Act and these were brought to the notice of Government by the Provincial Conferences held under the auspices of Local Governments in various presidencies as well as by the Annual Con-

ferences of the Registrars. The Government of India, recognising the need for removing these defects, decided to amend the old Act and a Bill embodying the essential alterations proposed was introduced in the Imperial Legislative Council and after a few amendments it emerged from the Council as the Co-operative Societies, Act (11, of 1912) replacing Act X of 1904. The outstanding features of the new Act were as follows:—

(a) It authorised the formation of societies for purposes other than credit, which was possible under the old Act only with the special permission of the Local Government. This extension of co-operation to purposes other than credit marks an important stage in its development in India.

(b) It defined in precise terms the objects for which Co-operative Societies could be organised.

(c) It removed the arbitrary division of societies into Rural and Urban.

(d) It facilitated the growth of sound Unions by insisting on a limited liability by means of a special Clause about the registration of society one of whose members is a registered society.

(e) It empowered the Local Governments to frame rules and alter bye-laws so as to put restrictions on the dividends to be declared by societies and allowed them the discretion to sanction distribution of profits in the case of unlimited liability societies to their members.

(f) It allowed societies with the permission of the Registrar to contribute from their net profits, after the Reserve Fund was provided for, amounts up to 10 per cent. of their remaining profits to any charitable purpose as defined in the Charitable Endowments Act. This kept the movement in touch with local life by permitting societies to lend assistance to local educational and charitable institutions.

(g) It prohibited the use of the word "Co-operative" as part of the title of any business concern except a registered society.

**Store Societies.**—After the passing of this Act the application of co-operation to purposes other than credit has been greatly extended but as yet there has been no general demand for productive and distributive co-operative societies as is noticeable in England and elsewhere. At the end of the year 1912-13 there were only 9 store Societies in the country, the Madras Presidency claiming 7 of these with a membership of 3,255 and a working capital of Rs. 1,29,972-10-1. The United Provinces had the remaining two, while in Bengal two societies had opened Store Branches. An important industry which flourished in India before the introduction of machinery was the Handloom Weaving Industry, and efforts have been made to revive it by the formation of productive co-operative societies of handloom weavers. The weavers' societies are not merely Credit Societies, but undertake the purchase of good yarn for members and in some cases have store branches to sell the cloth produced by them. They have also been instrumental in Bombay in introducing it.

proved looms and methods amongst the conservative weaving classes. The total number of these societies in the country is 20, Bombay having 10, Bengal and Madras 1 each, the United Provinces 2 and the Central Provinces 6. The other Productive Societies are those for "gaoles" or milkmen, dyers, basket and brass workers in Central Provinces and "chhannas" and "dhors" in Bombay. There are also a building and oil-producing society in Madras, a zemindari society in Bengal, and a Sugar Factory worked on co-operative lines in Benares. There are two dairy societies—one a well-managed society in Benares and another in Bengal. Burma possesses a novel type of societies for the sale of paddy, having 7 such societies with a membership of 712. It is also a pioneer in the matter of Co-operative Insurance and has 23 Cattle Insurance Societies with a membership of 471. There are two manure purchasing societies in Bengal and 3 grain banks in Madras and 2 in Bombay.

**Agricultural Societies.**—These have until recently been engaged only in supplying cheap credit to their members but there are various other fields of work to which they may extend their activities. Grain societies may be started with advantage, receiving deposits in kind and allowing these to accumulate to be sold at profitable rates or distributed to the members in times of scarcity. Societies on a similar principle for the storage of fodder may assist in solving what is likely to become in the near future an important problem in rural economy. Another direction in which the Co-operative principle is being adopted is the starting of societies for purchase of and distribution among members of good unadulterated seed. Societies for the Co-operative purchase and sale of manure will also prove a great boon. The Government has of late made attempts to bring the Co-operative movement in close touch with the Agricultural Department. Co-operation has already been successful to a considerable extent in redeeming the chronic indebtedness of the agriculturist but if the improvement in his economic condition is to be permanent it is essential that he should be prevailed upon to adopt improved methods of production. The Agricultural Department does undertake propagandist work with this object, but its efforts have not proved as successful as they ought to be. A Co-operative Society provides just the effective agency to reach the agriculturists, and in many places societies have been the means of bringing home to the agriculturist the need for improved methods by distributing leaflets issued by the Agricultural Department and District Agricultural Associations to which they are sometimes affiliated. The Department has also used the societies as centres for delivering lectures and for holding demonstration and shows. As a result, a few societies have been enterprising enough to purchase up-to-date agricultural implements recommended by the Department and to use the proper manures and the certified varieties of seeds. If the reorganisation of Indian agriculture grows apace with the spread of co-operation there is no doubt that rural India will soon present a happier outlook than it does at present.

Since the establishment of factories in India an important labouring class has grown up in big industrial towns and this class is as deeply indebted and as badly remunerated as the agriculturists. Co-operation if introduced among people of this class would open a new life to them besides being the means of their economic regeneration. No serious efforts have hitherto been made in this direction as Urban co-operation has been confined more or less to middle class people. A few Mill Hands' Societies have been organised in Bombay but these should be multiplied a hundredfold among all classes of factory labourers, so that if successful, they may become the forerunners of a healthy, Trade Unionism in India.

**Defective Education.**—It is the experience of those who have to deal with the organisation and management of Rural societies that the sad state of education among the agricultural population is not only a real hindrance to their development but seriously endangers their very existence. There are villages where no schools exist and where there is hardly one individual who can read and write tolerably well. In most villages a few literate people can be found and it is these that form the nuclei of co-operative societies. Their ignorance in other matters is often so abysmal that it is hardly possible to instil into their minds even elementary notions of co-operation. Happily there are different types of villages where about 30 to 40 per cent. of the population are able to read and write and where one finds a dozen intelligent men who can understand the elements of co-operation. In a large number of societies, as has been pointed out previously, the secretaries who are the real managers are not *bona fide* members. This, it may be urged, is contrary to a fundamental principle of co-operation that there should be internal management of the business but it can scarcely be helped in a country where there are only a few among the total village population able to keep their own accounts much less to undertake the management of a society. It is true that co-operation provides a higher type of education but when the ground work itself is lacking it is impossible to build up the superstructure.

**Social Reform.**—Co-operation has, in some places stimulated the desire for education and members of rural societies have been known even at advanced ages to receive the elements of education to enable them to put their signatures on the society's papers, and to take a lively interest in the internal work of their societies. There are a few cases where a society has set its face against drunkenness, expelled members notorious for their intemperate habits and has in other ways worked for a better morality by insisting a high standard of life. Societies have occasionally condemned excessive and even heavy expenditure on marriages, and it is an encouraging fact that the percentage of loans advanced for this purpose is higher in the case of Urban than of Rural Societies. Liquidation of old debts again has been possible to a great extent and many an agriculturist who was formerly in a state of chronic indebtedness has been relieved of all his old debts and freed from the



necessity of incurring new ones. Credit has been much cheapened and it is now possible for the agriculturist to borrow at 9 per cent. what he could not borrow at less than 20 per cent. formerly. The village rates of interest have gone down considerably and the Sowcar is in most places not the terror and the force that he was. Business habits have been inculcated with the beneficial result that the agriculturist has learnt to conduct his own work more efficiently. Thrift has been encouraged and the value of savings better appreciated. Participation in the management of societies has brought home to the members the important lessons of self-help; but the most

important achievement of co-operation has been the instilling of a sense of communal life—a feeling of “all for each and each for all” amongst the members of a co-operative body.

If these signs become as common as they are now rare, and if, over and above the economic benefits achieved by it, co-operation succeeds in its true aim—the building up of the character of the people and the promotion of their welfare by the inculcation of the ideas of thrift and the principles of self-help; and above all, by showing the wisdom of mutual help and brotherliness amongst neighbours—is attained, a national regeneration will not be far off.

## Executive and Judicial functions.

Throughout the history of political agitation in India, few matters have received more consistent attention than the question of the separation of the Judicial and the Executive functions. It has been one of the principal planks in the political platform of the National Congress since its inception in 1885, and has received the support of men of every shade of political opinion, from the most violent Extremist to the most conciliatory Moderate.

The question arises from the fact that the Indian Administration is based on the Oriental view that all power should be concentrated in the hands of a single official. Thus the District Magistrate is the chief revenue authority in the District, he controls local boards and municipalities, and directs the District Police, and, in fine, almost every department within the District is to a large extent under his influence. Sessions trials and Civil Justice fall within the province of the District Judge, but there remains under the District Magistrate's orders a body of subordinate Magistrates who dispose of simple criminal cases, and commit graver ones to the Sessions.

The opponents of the existing system are apt to rely largely on *ad captandam* phrases, like "the maintenance of judicial independence," and "a violation of the first principles of equity," rather than to specify exactly what points they really consider objectionable. It appears, however, that there are two main items in the District Magistrate's position to which exception is taken: one is that he is executive head of the District with direct control of the police, has the power of trying cases; the other is that the subordinate Magistrates, who try the great majority of cases, are directly under him, receive his orders, and rely on his good opinion for their promotion.

As regards the first point, the number of cases actually tried by the District Magistrate is exceedingly small. Sir Charles Elliott, defending the existing system in 1896, said:—"There are many Districts in Bengal in which he does not try 12 cases a year." Since 1896 miscellaneous work has increased so much that even this small number has been greatly reduced. In fact, in Bombay to-day the majority of District Magistrates probably go through the year without trying a single case, and the difference would hardly be noticeable if the District Magistrate altogether lost his powers to try cases. The power is, however, sufficiently useful on occasions to outweigh the fear of harm arising from any abuse of that power on the rare occasions when it is used.

The more important item of the District Magistrate's power, that of control over his subordinate Magistrates, is attacked on the ground that he interferes with their "judicial independence." It is here assumed that control and interference are one and the same thing. If the District Magistrate said to his subordinate, "I consider this man guilty, and I expect you to convict him," there would be very real cause for complaint. But interference of this type does not occur, and is not alleged. It has been said that inspection is to the District Officer the very breath of his nostrils, and it is very largely to his continual inquisitiveness into the work of his subordinates,

that the relatively high standard of justice attained by the subordinate magistracy in India is due. The points towards which his inquiries are most frequently directed are matters like want of sense of proportion in sentences; delays and irregularities in procedure; subservience to the interests of a local bar; prolixity in judgments and so forth. If control of the Magistracy were exercised only by the District Judge, who is practically tied to his bench, this supervision would be impossible, and the only check on the subordinate Magistrates would be occasional strictures passed by the Judge in appeal or on revision.

The opponents of the existing system would substitute for the present Magistracy trained lawyers, whose sole work would be that of stipendiary magistrates. There is no reason to suppose that the trained lawyer would be any less liable to the faults mentioned above. Nor is the Magistracy of to-day altogether untrained. The criminal law of India is to a very large extent independent of customary and case law, and is based on comparatively simple codes. Every official Magistrate is examined in these codes, and with a few years' experience, he is often a match in argument for all but the best of the local *vakils*. It is not, therefore, apparent that any gain would result from this change, while the increased charge to the public revenue would be enormous.

In 1890, the movement against the existing system culminated in a "memorial on the proposed separation of the Judicial and Executive duties in India," addressed to the Secretary of State, and signed by ten Indian gentlemen—mostly high judicial authorities. This memorial sets forth eight objections to the existing system, and it may perhaps be instructive to examine these seriatim, and to indicate with respect to each point the grounds on which an apology for the present system may be based:—

(1) "That the combination of judicial with executive duties in the same officer violates the first principles of equity."

If the same officer actually brought an offender to justice, and then tried him personally, the above theoretical objection might have considerable weight. In practice; however, as has been shown above, this does not occur; and the combination of functions in the District Officer is governed in such a way by criminal codes that the interests of accused persons are effectually safeguarded.

(2) "That while a judicial authority ought to be thoroughly impartial, and approach the consideration of any case without previous knowledge of the facts, an Executive Officer does not adequately discharge his duties, unless his ears are open to all reports and information which he can in any degree employ for the benefit of the District."

In reply to this it may be repeated that the District Magistrate, in fact, tries very few cases at all and it may be noted, moreover, that the law very largely restricts the possibility of a magistrate trying a case of which he has any previous knowledge. Further, it is surely to the public advantage that the police should be controlled by the District Magistrate, whose sole aim is or should be justice,

rather than by a police officer whose professional zeal might weigh hardly on the innocent suspect, and whose *esprit de corps* might shield a corrupt or unscrupulous subordinate from justice.

(3) "That Executive Officers in India, being responsible for a large amount of miscellaneous business, have not time satisfactorily to dispose of judicial work in addition."

By this it is presumably meant that the Executive Officer is at present overworked.

This is quite possible, but the remedy would appear to lie rather in an increase of staff than in a re-distribution of functions, which in itself could not remedy the defect.

(4) "That, being keenly interested in carrying out particular measures, they are apt to be brought more or less into conflict with individuals, and therefore that it is inexpedient that they should also be invested with judicial powers."

It is implied here that the District Officer may use his judicial powers to enforce the executive measures in which he is interested. It is not unknown for a District Magistrate to issue orders to subordinates enjoining severe sentences in particular classes of cases and this may have reference to a particular executive policy (e.g., such orders might be issued with regard to smuggling cases in a District where the illicit traffic in cocaine was rife). But it by no means follows that any injustice will result from such a line of action. Moreover, if this kind of "interference" by the District Magistrate were stopped, the only alternative left to Government, in cases where they wished specially to repress a particular type of crime, would be to amend the criminal codes by raising the minimum penalty for the offence, thereby depriving Magistrates of all discretion in the matter.

(5) "That under the existing system (Collector-Magistrates do, in fact, neglect judicial for executive work."

It is not at first sight obvious how this can be urged as an objection to the fact that they do both types of work. It is true, as already stated, that the District Magistrate, tries very few original cases, but it by no means follows that what judicial work he does, is done negligently.

(6) "That appeals from revenue assessments are apt to be futile when they are heard by Revenue Officers."

It is insinuated that all revenue matters should be decided by the operation of the weighty and complicated machinery of the Civil Courts. The idea of such a system in India, where three-quarters of the population are dependent on revenue-paying land, conjures up such a nightmare of confusion, that the imagination positively reels. The cost would be colossal. Nor is the objection really relevant. The Revenue Officer when hearing appeals from executive acts of his subordinates, is still an Executive and not a Judicial Officer, and what is here aimed at is a revision of the scheme of matters, which the law allows to be dealt with executively, rather than a separation of the two functions.

(7) "That great inconvenience, expense and sufferings are imposed upon suitors required to follow the camp of a Judicial Officer, who, in the discharge of his executive duties, is making a tour of his District."

This is perhaps one of the least convincing

objections advanced against the existing system. In the first place a Magistrate in headquarters is likely to be at least as far from the homes of suitors, as he is in camp. The careful Magistrate, moreover, will arrange the hearing of cases at places which suit the convenience of parties as far as possible, and considerable trouble and expense are often saved to parties in this way. If all judicial work were done by Magistrates who had no other work, the number of Magistrates would be much reduced, and it is obvious that three resident Magistrates in a District must be much less accessible than a dozen or more who are continually moving about among the agricultural population. The only people who really are inconvenienced by the touring of a Magistrate are the pleaders.

(8) "That the existing system not only involves all whom it concerns in hardships and inconvenience, but also by associating the judicial tribunal with the work of the Police and of detectives, and by diminishing the safeguards afforded by the rules of evidence, produces actual miscarriages of justice and creates, though justice be done, opportunities of suspicion, distrust and discontent which are greatly to be deplored."

It is difficult to answer so general and indefinite an objection as this, except by flat denial.

It may, however, be said that if miscarriages of justice, due to this cause, were at all frequent they could never long remain hid, and much more would be heard of them than is actually the case. In 1896, Mr. Manomohan Ghose, a Bengali lawyer of repute, drew up a memorandum containing an account of 20 cases, which had come to his notice in the course of a long experience at the bar, and in which he alleged that injustice had resulted from the union in one officer of the judicial and executive functions. These instances were discussed by Sir Charles Elliott, formerly Lieutenant-Governor of Bengal, in an article in the *Asiatic Quarterly Review* for October 1896, and his analysis robs this evidence of nearly the whole of its weight.

These then are the main objections which have been raised against the existing system. It may well be asked why, if these objections are groundless, has there been such unanimity in the opinions expressed by reformers. There are perhaps two reasons which are mainly responsible. Firstly, it is beyond question that the proposed separation would everywhere weaken the Collector's position, and thereby that of the British Raj; and secondly, those who desire the separation belong almost without exception to the class from which lawyers are most largely recruited. The separation would not merely provide innumerable stipendiary billets, holders of which would have to be recruited from among the lawyers, but an immense increase of litigation would also result.

There is no doubt that over the greater part of India, the common people place a very real confidence in the Magistracy, and this confidence is largely based on the wise and effective control exercised by District Magistrates over their subordinates. Nor is there any doubt that the common people would view with the most intense alarm any proposal which would render the magistracy independent of this control.

## The Women's Medical Service for India.

This Service which has recently been inaugurated under the auspices of Her Excellency Lady Hardinge, is included in the National Association for supplying female medical aid to the Women of India, generally known as the Countess of Dufferin's Fund; and is administered by the Central Committee of that Fund. The Government of India has so far allotted the sum of £10,000 per annum towards its maintenance. The present sanctioned cadre is twenty-five first class medical women, of which number five is for the purpose of forming a leave reserve. Recruitment of the service is made (a) in India by a medical sub-committee of the Central Committee which includes the Director-General, Indian Medical Service, the Honorary Secretary to the Central Committee, and a first-class medical woman; (b) in England, by a sub-committee, consisting of a medical man and two medical women conversant with conditions in India, to be nominated by the Home Committee of the Countess of Dufferin's Fund. These sub-committees perform the duties of a medical board examining candidates for physical fitness, and for return to duty after invaliding.

The Central Committee determines what proportions of the members of the Service is to be recruited in England and in India respectively. In the original constitution of the Service, duly qualified medical women who are in the service of, or who have rendered approved service to, the Countess of Dufferin's Fund, are to have the first claim to appointment, and thereafter special consideration is to be paid to the claims of candidates who have qualified in local institutions and of those who are natives of India.

**Qualifications.**—The qualifications are that the candidate must be (a) a British Subject resident in the United Kingdom or in a British Colony or in British India, or a person resident in any Territory of any Native Prince or Chief under the suzerainty of His Majesty exercised through the Governor-General of India or through any Governor or other officer subordinate to the Governor-General of India. (b) Must be between the ages of twenty-four and thirty at entry. (c) She must be a first-class Medical Woman, i.e. she must possess a medical qualification registerable in the United Kingdom under the Medical Act, or an Indian or Colonial qualification other than L.M.S. or Licentiate of a Medical College. In India registerable under the United Kingdom under that Act; but this condition does not apply at the original constitution of the Service to medical women in charge of hospitals who, in the opinion of the Central Committee, are of proved experience and ability. (d) The candidate must produce a certificate of health and character. But the Central Committee reserves the power to promote to the service ladies not possessing the above qualifications, but who have shown marked capacity. Members of the Service are required to engage for duty anywhere in India or Burma. Those recruited in England serve for six months, and those recruited in India for three months, in a General Hospital of the Province to which they are deputed. After this period of probation

has been satisfactorily passed their appointments are confirmed. The services of Members may be lent to Local or Municipal bodies, or to special institutions, which may be responsible for whole or part of the pay.

**Pay.**—The rates of pay are as follows:—During probation Rs. 350 per month; thereafter Rs. 400 up to the end of the 4th year; Rs. 450 from the 5th to the 7th year; Rs. 500 from the 8th to the 10th year; and Rs. 550 after the 10th year. But no member can be confirmed in the 400 rupee grade unless she has passed an examination in such vernacular as the Provincial Committee shall prescribe, within one year of her appointment. In addition suitable quarters are provided free of rent; or a house rent allowance to be determined by the Provincial Committee may be granted in lieu of it.

Members of the Service are permitted to engage in private practice provided it does not interfere with their official duties, and the Provincial Committee has the power to determine whether such duties are thus interfered with. Except in very special cases retirement is compulsory at the age of forty-eight. A member whose appointment is not confirmed, or who is dismissed, is granted an allowance sufficient to pay her passage to England.

**Leave Rules.**—(a) Casual Leave, which is occasional leave on full pay for a few days, and is not supposed to interrupt duty. (b) Privilege Leave, which is leave on full pay and is meant to provide a month's holiday in the year. If it cannot be granted during the year, it can be accumulated up to a limit of three months. (c) Furlough, at the rate of two months for each year of duty, the latter including privilege leave and casual leave. First furlough is not granted till after four years' of duty, and more than eight months furlough is not granted at one time. Study leave may also be granted not exceeding three months at a time and up to nine months during the whole service. (d) Sick leave, up to a maximum of two years. (e) Extraordinary leave at any time at the discretion of the Central Committee. When on furlough or sick leave the allowances are half the average monthly pay of the six months presence on duty immediately preceding the taking of the leave. There are no allowances during extraordinary leave. A Lady appointed in England receives a sum of £70 to cover her passage and incidental expenses. There are also allowances to cover the cost of journeys by rail and road.

There is also to be a Provident Fund, each member contributing monthly thereto five per cent. of her salary, the Association contributing an equal amount, and each subscriber's account being granted interest on the amount standing to credit at the rate of 4 per cent. per annum, "or at such rate as the Central Committee can invest without risk to the funds of the Association."

The Member loses her contributions if she resigns (except on account of ill-health) before completing five years service, or in the event of dismissal. On retirement after approved service the sum which has accumulated to the credit of the subscriber is handed over to her.

**DEFECTS IN THE SCHEME.**—The above are the regulations as recently published. It is probable that they will have to be altered in details as the authorities who have drawn up the scheme do not appear to have taken into consideration the great increase in the cost of living which of late years has pressed heavily on Europeans in India with limited salaries. The initial salary is inadequate for English ladies in India, and those who enter the service without private means may find themselves unable to resign the service should they find it uncongenial, though not having been able to save sufficient to pay the expensive journey by ship to Europe, the cost of which (second class) is equivalent to a little more than a month's pay. The same low rate of pay may

also prevent the members taking the furlough due to them, a matter of great importance seeing that the Indian climate is especially trying to Englishwomen. The furlough rules compare unfavourably with those granted to Englishmen in the corresponding Indian Medical Service, who are entitled to calculate one-fourth of their active service for furlough, whereas the women are only to be granted one-sixth. Moreover the men can accumulate furlough up to two years, the women only accumulating eight months. It is also to be noted that there is only a lump-sum on retirement, nothing in the shape of a pension. It is also to be pointed out that private practice for the English doctor in India, whether man or woman, is always precarious and often unobtainable.

### Supplying Medical Aid to the Women of India.

This Association, at once one of the most efficient as it is among the most useful and benevolent institutions in India, is the outcome of the work of the Countess of Dufferin and Ava during the time of her husband's Viceroyalty. The late Queen Victoria drew the attention of the Countess, on the departure of the latter for India, to the question of supplying medical aid to women in this country, and asked her to take a practical interest in the subject. As the result of her enquiries she found that, though certain great efforts were being made in a few places to provide female attendance in hospitals, training schools, and dispensaries for women, and although missionary effort had done much, and had indeed for many years been sending out pioneers into the field, yet taking India as a whole, its women owing to the "purdah" system, were undoubtedly without that medical aid which European women were accustomed to consider as absolutely necessary. In the Countess' own words written in 1886 after the movement had been started, "I found that even in cases where nature, if left to herself, would be the best doctor, the ignorant practice of the so-called midwife led to infinite mischief, which might often be characterised as abominably cruel. It seemed to me, then, that if only the people of India could be made to realise that their women have to bear more than their necessary share of human suffering, and that it rests with the men of this country, and with the women of other nationalities to relieve them of that unnecessary burden, then surely the men would put their shoulders to the wheel and would determine that wives, mothers, and sisters, and daughters dependent upon them should, in times of sickness and pain, have every relief that human skill and tender nursing could afford them. . . . I thought that if an association could be formed which should set before itself this one single object, to bring medical knowledge and medical relief to the women of India, and which should carefully avoid compromising the simplicity of its aim by keeping clear of all controversial subjects and by working in a strictly unsectarian spirit, then it might become national, and ought to command the support and sympathy of every one in the country who has women dependent upon him."

**Initiation of the Scheme.**—Lady Dufferin's plans were warmly received by the public

all over India. The scheme was drawn out and published in the different dialects. The association was named "The National Association for Supplying Female Medical Aid to the Women of India," and the money for its support, as it was received, was credited to the "Countess of Dufferin's Fund." The affairs of the Association were managed by a central committee of which the Countess of Dufferin during her stay in India was President. Branch Associations, each independent for financial and administrative purposes, but linked with the central committee, were formed in most parts of the country, and the work may be said to have started from August 1885. The objects of the Association are thus set forth in its publications.—I. Medical tuition, including the teaching and training in India of women as doctors, hospital assistants, nurses, and midwives. II. Medical relief, including the establishing under female superintendence, of dispensaries and hospitals for the treatment of women and children; the opening of female wards under women superintendents in the existing hospitals and dispensaries; the provision of female medical officers and attendants for existing female wards; and the founding of hospitals for women where specially funds or endowments are forthcoming. III. The supply of trained female nurses and midwives for women, and nurses for children in hospitals and private houses.

Within four years from its inception there were in existence twelve hospitals for women and fifteen dispensaries, most of which were officered by women, and all more or less closely connected with the Association. From the subscriptions collected there was enough to set aside a substantial fund as an endowment fund; and also six medical, twelve nursing, and two hospital assistant scholarships had been provided for.

**Growth of Scheme.**—The first regular training school in India for the instruction of native pupils in medical and surgical nursing and in midwifery was established in 1886 by the Bombay Branch of the Association in connection with the Cama Hospital at Bombay. This is a civil institution under Government management, and is solely for women and children of all castes and denominations. In connection therewith is the All-India Obstetrical Hospital and the Jaffer Suleiman dispensary for women and children. The present plans

cian-in-charge is Miss A. M. Benson, M.D., Lond.

By the end of 1910 there were thirteen Provincial Branches working under the central committee; and attached in some manner, or affiliated to the provincial branches, there were about one hundred and forty Local and District Associations or Committees engaged in furthering the work of the Association. There were one hundred and fifty-eight hospitals, wards, or dispensaries of various kinds for the medical relief of close on one and a quarter million women and children; and the value of the institutions engaged in the work of the Association was estimated at close on fifty lakhs of rupees.

**Annual Report.**—The Report of the Association is published annually, and can be obtained either from the Superintendent of Government Printing, Calcutta, or from the leading booksellers, the price being one rupee. The map of India published therewith shows the centres worked by the Dufferin Fund uniformly scattered over the Indian Peninsula, and illustrates how the Association has taken root in the country. The Lady President is Her Excellency the Lady Hardinge of Penshurst, C.I., and the Honorary Secretary is Lt.-Col. Sir James Roberts, I.M.S., Surgeon to the Viceroy.

## NURSING IN INDIA.

Whilst India cannot show the complete chain of efficiently-nursed hospitals which exists in England, there has been a great development of skilled nursing of recent years. This activity is principally centered in the Bengal, Madras, and Bombay Presidencies, where the chief hospitals in the Presidency towns are well nursed, and where large private staffs are maintained, available to the general public on payment of a prescribed scale of fees. These hospitals also act as training institutions, and turn out a yearly supply of fully trained nurses, both to meet their own demands and those of outside institutions and private agencies. In this way the supply of trained nurses, English, Anglo-Indian and Indian, is being steadily increased. In Bombay the organisation has gone a step farther, through the establishment of the Bombay Presidency Nursing Association, Gordon House, Apollo Bunder, Bombay. This is composed of representatives of the various Nursing Associations in charge of individual hospitals, and works under the Government. The

principle on which the relations of this Association with the Local Associations is governed is that there shall be central examination and control combined with complete individual autonomy in administration.

**LADY MINTO NURSING SERVICE.**—Lady Minto's Indian Nursing Association was formed to improve the facilities for the supply of trained nursing in the mofussil stations. It works in every province of India save the Bombay and Madras Presidencies. It sprang from the Up-Country Nursing Association, which worked in the United Provinces and the Punjab and was formed to increase the sphere of that association, first on the initiative of Lady Curzon and afterwards of Lady Minto. It is supported in part from subscriptions, in part from a Government grant, and also derives revenue from fees and the subscriptions of the Home Branch. The number of cases attended for the last financial year was 514. The headquarters of the Service are at Simla.

## The Hindu University Movement.

There were originally three distinct movements in favour of founding a Central Hindu University. In the first place, in 1904, the Hon. Pandit Madan Mohan Malaviya made proposals which were confirmed and approved by the Sanatan Dharma Mahasabha or Congress of the Hindu Religion which met at Allahabad in January 1906. About that time, Mrs. Annie Besant also put forward the idea of establishing a University at Benares and applied to the Government for a charter. In the third place, a number of Hindu gentlemen under the guidance of the Hon. Maharaja Sir Rameshwar Singh Bahadur, K.C.I.E., of Darbhanga were considering the possibilities of starting an educational institution at Benares. The leaders of these movements soon recognised that a union of forces was essential, and in April 1911 Mrs. Besant and the Hon. Pandit Madan Mohan Malaviya met at Allahabad to consider possible lines of agreement. This meeting was followed shortly afterwards by another, when it was agreed that the first governing body should consist of representatives of the Hindu community, Mrs. Besant and representative trustees of the Central Hindu College and also that the Theological faculty should be entirely in the hands of Hindus. At the same time Mrs. Besant agreed to withdraw her petition for a charter which was then before the Secretary of State. At subsequent meetings presided over by the Maharaja Bahadur of Darbhanga a draft constitution was arranged and it was decided to wait upon the Hon. Member for Education and lay before him the provisional scheme. In the meantime, deputations for the collection of funds were instituted and these visited the leading centres in India. The result was most satisfactory. Amounts, big and small, were promised not only from India, but from Indians so far afield as Borneo, Mauritius and South Africa; and besides Hindus of all denominations and stations in life, some Mahomedans, and a few Europeans, official as well as unofficial, have promised to contribute. The total receipts on October 20, 1913, amounted to Rs. 28,24,069-11-5 to which may be added the capitalised value of the annual gifts in perpetuity of the Jodhpur, Kashmir and Bikanir Durbars. And a year later the grand total of receipts was approximately 42 lakhs. It is, therefore, confidently believed that there will be no difficulty in collecting the balance of the minimum of Rs. 50,00,000 required by Government.

**Government Approval.**—In October 1911, Sir Harcourt Butler wrote a very sympathetic letter signifying the approval of Government to the scheme and indicating the conditions laid down by the Government of India:—

1. The Hindus should approach Government in a body, like the Mahomedans.
2. A strong, efficient and financially sound college with an adequate European staff should be the basis of the scheme.
3. The University should differ from existing Indian Universities by being a teaching and residential institution and by offering religious instruction.
4. The movement should be entirely educational.

5. There should be the same measure of Government supervision as in the case of the proposed University at Aligarh.

It was subsequently added that a sum of Rs. 50,00,000 must be collected, but the capitalised value of the properties transferred in trust and the perpetual grants made by the Maharajas of Jodhpur, Kashmir and Bikanir may be included.

**Objects of the University.**—These may be said to be as follows:—

1. To promote the study of the Hindu Shastras and of Sanskrit literature generally, as a means of preserving and popularising the best thoughts and culture of the Hindus and all that was good and great in the ancient civilisation of India.
2. To promote learning and research generally in arts and science in all branches.
3. To advance and diffuse such scientific, technical and professional knowledge, combined with the necessary practical training, as is best calculated to promote indigenous industries and develop the material resources of the country.
4. To promote the building up of character in youth by making religion and ethics an integral part of education.

**Proposed Faculties.**—In a letter to Sir Harcourt Butler the Maharaja Bahadur of Darbhanga has given an outline of the proposed faculties, which will be those of Oriental studies, Theology, Arts, Science (Pure and Applied) and Law. The main objects of the first-named will be to foster the study of Sanskrit and its literature. It is proposed to place in charge of the work a European Sanskrit scholar who will be assisted by Indian professors and pandits of the old class. The faculties of Arts and Science will work for the present on the lines laid down by the existing universities. The study of some special branch of technical education will be inaugurated under the heading Applied Science which will be expanded into a Faculty of Technology in due course. The Faculty of Law will specialise in the Hindu Law and its study from original sources. It is hoped also that in course of time there will be Faculties or Colleges of Agriculture, Commerce, Medicine, Surgery and other branches of knowledge such as Music and the Fine Arts.

Although denominational in character, the proposed University will be open to all castes and creeds. Provision for instruction and examination in Theology and Religion will be made for Hindus only and such instruction will, in their case, be compulsory. Subject to the general control of the Senate, the instruction of youths of Jain, Sikh and other faiths will be in the hands of sub-committees consisting of representatives of their respective religions. The University will be open for women, subject to such conditions as the regulations may prescribe. The constitution of the University will be modelled on those of Sheffield, Manchester and Birmingham and in this respect will differ from those of the existing universities in India. The office of the Organisation Committee is in Allahabad and the Secretary is the Hon. Pandit Sandarbal, C.I.E.

## The Mahomedan University.

The movement in favour of transforming the Mahomedan Anglo-Oriental College at Aligarh into a teaching and residential University was started as early as the end of last century. It was hoped that the foundation of such an institution would awaken among Mahomedans the memory of their old seats of learning and prove an incentive to them in the future to regain the intellectual eminence from which they seem to have fallen of late years. Some time ago it was observed in a government report that the backwardness in education on the part of Mahomedans was due partly to poverty, partly to indifference and partly to their educational wants not being the same as those of the remainder of the population amongst whom they live. In this year's report, however, it is stated that a remarkable awakening on the part of Mahomedans in this direction has been witnessed during the last decade, when the total number of pupils under instruction in all classes of institutions rose by nearly 60 per cent. On the other hand in the matter of higher education their numbers remain well below that proportion notwithstanding the large relative increase. It was the aim of Sir Syed Ahmed Khan, K.C.S.I., years ago to place the benefits of a liberal education within the reach of the Mahomedan community and in 1875 a school was opened which three years later was converted into the Aligarh College. Under the inspiring influence of Mr. Beck and of Mr. (now Sir) Theodore Morison great strides have been made. The college is now affiliated to the Allahabad University for the First Arts and B.A., for the B. Sc. in mathematics, chemistry and physics, for the M. Sc. in mathematics and chemistry and D. Sc. in mathematics; and for the M. A. in English, Arabic, Persian, Sanskrit, History, Philosophy, Political Economy and Mathematics. The students of the college are also instructed in the theology and faith of Islam.

**Attitude of Government.**—The Aga Khan has for some years been awaiting the time when public opinion in the community would be ripe for taking steps to found a Mahomedan University on the basis of the Aligarh College and his appeal for funds be met with a very satisfactory response. In addition, a draft constitution has been drawn up by a consultative committee to which the Hon. Sahibzada Aftab Ahmad Khan has acted as secretary, and this has been submitted to the Secretary of State. It is intended that the pro-

posed University will be open to students of every race and creed, but at the same time it will make arrangements especially for the religious teaching of the Mahomedan undergraduates and graduates. In 1912 a reply was received from Sir Harcourt Butler which was on the whole sympathetic towards the movement. At the same time the Government of India laid down certain conditions which were similar in the main to those afterwards imposed in the case of the suggested Hindu University. One of the conditions was that the new University should not possess the powers of affiliating Moslem institutions situated in other parts of India. This restriction of the power of affiliation to local areas only is the result of the adoption by the Government of India of a considered policy of general application. The Government intends thereby to encourage the development of teaching and residential universities, instead of providing any further extension of the so-called "federal" or examining universities. The decision is probably a wise one, but it is a pity that it has been so long delayed, as considerable disappointment has been caused amongst Mahomedans all over India; and it is stated that it may be the cause of the demand for the return of subscriptions which have already been put forward in the Punjab. It is to be hoped, however, that the leaders of the movement will realise that this condition of the Government of India may be beneficial. The difficulties of supervision and inspection already found so great in the case of the larger State universities would be augmented in that of the unofficial communal institutions offering to survey colleges in all parts of India. Moreover, the position and prestige of Aligarh might easily be lowered by the fact that inferior institutions were linked with it.

The promoters also complain against the decision of the Government that the University shall be designated the University of Aligarh instead of as they wish the Moslem University and also that the powers vested in the Viceroy under the constitution shall be exercised by the Government of India. This third decision will certainly place the new University under official control. It is unlikely that the Government will give way on these matters as besides the proposed Hindu University at Benares it is anticipated that similar institutions will shortly be founded at Patna, Nagpur and Rangoon.



## Indian Art.

Within the last few years there has been a most interesting and promising, though somewhat narrowly confined, revival in Indian Art. For this, it is to be feared, scant credit is due to British educational policy in India, though the impetus has come mainly from a few British and other European enthusiasts who have reminded cultured India of the value of its ancient artistic heritage and indicated the possibilities of revival. Each year between 6,000 and 7,000 students pass the various examinations of the four Schools of Arts maintained by the State, but until very recently those institutions have been in some respects seriously mistaken in ideal and method. Viewing their work over half a century it may be said broadly that they have paid very inadequate attention to the traditions of Indian Art, and that in consciously or unconsciously encouraging Western influences which the Indian student could not thoroughly assimilate, they have not even been particular to choose good examples of Western art. Nor have the Schools of Arts been altogether free from the taint of commercialism; indeed, for some years one of them was in effect something between an industrial workshop and an emporium for selling Indian curiosities nicely designed to meet the taste of tourists. In justice to the Schools it should be added that they have seldom been able to attract into them members of the hereditary craftsmen class. The material they have had to work with has been unpromising. Further, even for students who might attain to conspicuous skill, there have been few openings in after-life. All this is now changing, but the improvement began only some fifteen years ago, and it is mainly due to agencies more or less independent of the schools.

### A Notable Revival.

The revival which has already produced one notable artist, Mr. Abanindranath Tagore, is the direct outcome of the study of the work of the best periods of Indian art. In order to comprehend it, it is therefore necessary to glance back over the history of art in India. With sculpture we are here not particularly concerned, for there is no perceptible revival in it at present; but it may be said in passing that its golden age in India was the period which produced the sculptures of Ellora and Elephanta, that in its finest examples this art was genuinely Indian, for the Gandhara sculptures, which show strong Greek influence, are inferior enough to make the contention that India owed much to Greece absurd, and that perhaps the finest "Indian" sculpture is to be found in Java, where at Borobudur, in the eighth and ninth centuries A.D. the descendants of Indian emigrants wrought a long series of mighty masterpieces. As regards paintings, we begin with those at Ajanta, produced at intervals between the first century before Christ and perhaps the seventh century of the Christian era. A typical example, in which a mother and her child supplicating Buddha are presented not only with much technical skill but with tenderness of feeling, may be found reproduced in Griffith's book on Ajanta and in Mr. Havell's "Indian Sculpture and Painting."

These paintings are true frescoes, differing in method from the Italian in little but the use of mechanical as well as chemical combination of colours.

Practically all the work of this time has perished, and of the secular art of the period before the Moguls there is scant vestige. With the Moguls for the first time painting becomes frankly secular. Whereas a Hindu philosopher had laid it down that it was iniquitous to represent natural objects when the divinities could be made the artist's subjects, the Islamic dislike of idolatry naturally conduced to the development of secular painting. These Mogul artists were Persians or others, more or less under the influence of the Persian school. Akbar patronised them liberally, and Abul Fazl, his historiographer, records the triumphs of Mir Sayyid Ali, a Persian, and Daswanth, a Hindu of humble origin, whose life, darkened by insanity, ended by suicide. The work of these and their fellows is notable for minute finish, but it is stiff, and in colour often crude.

### Moghul Painting.

It was in the reign of Jehangir (1605-1628) that Mogul painting reached its highest level, and it is to that period that the Indian painters of to-day and to-morrow must look for the best models for all work of theirs which is not inspired by Hindu philosophy or religion. The Emperor was himself a consummate connoisseur, capable, it is recorded, of discriminating unerringly between the work of the artists of the same school. Sherif Khan, Mansur and Abdul Hassan, the chief artists of his time, were by him highly honoured; the last, in fact, owed his training as well as distinctions and rewards to the Emperor. These and several other painters of the period excelled in portrait-miniatures, of which happily, in consequence of the practice of rolling up paintings like MSS. and only occasionally exhibiting them to view, we have many examples in good condition. These artists are markedly superior to their predecessors' infuency and grace of line and show that they benefited by the closer observation of natural facts inculcated from about 1600 onwards. Many of the outline drawings, done with lamp black over a preliminary sketch faintly carried out with a fine brush dipped in Indian red, are of exquisite quality. It is noteworthy that, though in some cases landscape is well rendered as a mere background, there are no examples in Indian painting of the classic age of pure landscape: here the Indian painter of to-day has to develop an ideal with hardly any suggestion from predecessors. The puritanical and bigoted Aurangzeb was naturally hostile to art, and by the middle of the eighteenth century all the glory had departed from Indian painting, though a measure of skill in traditional methods long survived and for a time was not unappreciated by Englishmen in India. By the early years of the nineteenth century, however, Indian painting had virtually ceased to exist. At length a painter arose, to be much admired by the worst judges among those Indians whose Western education had made them indifferent to indigenous art without giving them any real interest in

European art. This man, Ravi Varma, depicted Indian legends as if he were painting figures in amateur tableaux; of Indian art traditions there is not a trace in his work, which is theatrical, sentimental and of poor quality technically. There have been others who have more successfully assimilated something of Western ideas of art, but their work is without interest, except in so far as it exhibits a deplorable submissiveness to second-rate Western teaching. The movement of to-day which arouses high expectations is that in which Mr. Abanindranath Tagore is the leader. This artist, member of a Bengali family, noted for culture and cousin of the poet Rabindranath Tagore, has made a close and most profitable study of the work of the Mogul and other painters of India, but he has seen in the examples of their work not something to be slavishly copied but certain principles which he applies freshly, in his own way. He has imagination, a sense of composition, a delicate sense of colour and much, though as yet perhaps not quite secure, command of the technical resources of his art. Above all, he is sincere; nowhere is there in his work any deliberate exploitation of the fact that he is an Eastern artist who must at all costs exhibit Nationalism in his painting. One of his pictures representing the spirits of the air, is justly famous, and his admirable illustrations to Omar Khayyam, issued by the *Studio*, have found appreciation in England as well as in India. Among those more or less associated with this painter, who as Vice-Principal of the Calcutta School of Art, is exercising a strong influence within narrow limits, may be mentioned Mr. Surendranath Ganguly and Mr. Naxda Lal Bose, the latter of whom has a vein of true poetic feeling and both of whom work in intelligent but not abject obedience of the old tradition of Indian painting. If there is no fourth name at present to put besides those mentioned, there is every reason to believe there soon will be several.

### Modern Interest.

At the present time there is a marked development of interest among educated Indians in arts indigenous to their country, but it must be recognised that there is little real knowledge and taste in the public to which the Indian artist of to-day has to address himself. Work is esteemed rather as proof of Indian capacity than for its strict artistic merits. Among those Indians and Europeans who have devoted special attention to the matter, there is an unfortunate tendency to exaggerate the value of old Indian art and thus to encourage the belief that the Indian artist of to-day can find no higher task than the repetition of old and narrow conventions. It is perfectly true that we must accept the convention of any art without *a priori* objections, but it by no means follows that one convention is as good as another. The question arises what limits a convention sets on those working within it, and it is plain that the conventions of Indian art have compelled the exclusion of a vast amount of the Western painter's best material. On the other hand, it should be recognised that his traditions have made it almost impossible for the Indian artist to fall into the common Western error of taking a mere representation of fact to be the aim of art. It is most desirable that the Indian artist of to-day should revive the old traditions; that he should be genuinely Indian, but it is not desirable that he should needlessly cramp himself because certain enthusiasts assure him that the defects and limitations of classic Indian art are positive merits. The Indian artist has a vast treasure of religious and philosophical matter to draw upon for such subjects as are most congenial to the Hindu genius, and he has the whole range of Indian life to observe and create over again. There is no occasion for an unwise asceticism on the ground that ancient conventions ruled out most of the material.

# Indian Architecture.

## I. ANCIENT.

The architecture of India has proceeded on lines of its own, and its monuments are unique among those of the nations of the world. An ancient civilization, a natural bent on the part of the people towards religious fervour of the contemplative rather than of the fanatical sort, combined with the richness of the country in the sterner building materials—these are a few of the factors that contributed to making it what it was, while a stirring history gave it both variety and glamour. Indian architecture is a subject which at the best has been studied only imperfectly, and a really comprehensive treatise on it has yet to be written. The subject is a vast and varied one, and it may be such a treatise never will be written in the form of one work at any rate. The spirit of Indian art is so foreign to the European art culture that it is only one European in a hundred who can entirely understand it, while art criticism and analysis is a branch of study that the modern Indian has not as yet ventured upon to any appreciable extent. Hitherto the one, and with a few exceptions the only recognized authority on the subject has been Fergusson, whose compendious work is that which will find most ready acceptance by the general reader. But Fergusson attempted the nearly impossible task of covering the ground in one volume of moderate dimensions, and it is sometimes held that he was a man of too purely European a culture, albeit wide and eclectic, to admit of sufficient depth of insight in this particular direction. Fergusson's classification by races, and religions is, however, the one that has been generally accepted hitherto. He asserts that there is no stone architecture in India of an earlier date than two and a half centuries before the Christian era, and that "India owes the introduction of the use of stone for architectural purposes, as she does that of Buddhism as a state religion, to the great Asoka, who reigned B.C. 272 to 236."

### Buddhist Work.

Fergusson's first architectural period is then the Buddhist, of which the great type at Sanchi with its famous Northern gateway is perhaps the most noted example. Then we have the Gandharan types and monasteries. Perhaps the examples of Buddhist architecture of greatest interest and most ready access to the general student are to be found in the Chaitya halls or rock-cut caves of Karli, Ajunta, Nasik, Ellora and Kanheri. A point with relation to the Gandhara work may be alluded to in passing. This is the strong European tendency, variously recognized as Roman, Byzantine but most frequently as Greek, to be observed in the details. The foliage seen in the capitals of columns bears strong resemblance to the Greek acanthus, while the sculptures have a distinct trace of Greek influence, particularly in the treatment of drapery. From this it has been a fairly common assumption amongst some authorities that Indian art owed much of its best to European influence, an assumption that is strenuously combated by others.

The architecture of the Jains comes next in order. Of this rich and beautiful style the most noted examples are perhaps the Dilwara temples near Mount Abu, and the unique "Tower of Victory" at Chittore.

### Other Hindu Styles.

The Dravidian style is the generic title usually applied to the characteristic work of the Madras Presidency and the South of India. It is seen in many rock-cut temples as at Ellora, where the remarkable "Kylas" is an instance of a temple cut out of the solid rock, complete, not only with respect to its interior (as in the case of mere caves) but also as to its exterior. It is, as it were, a life-size model of a complete building or group of buildings, several hundred feet in length, not built, but sculptured in solid stone, an undertaking of vast and, to our modern ideas, unprofitable industry. The Pagoda of Tanjore, the temples at Seringham, Chidambaram, Vellore, Vijayanagar, &c., and the palaces at Madura and Tanjore are among the best known examples of the style.

The writer finds some difficulty in following Fergusson's two next divisions of classification, the "Chalukyan" of South-central India, and the "Northern or Indo-Aryan style." The differences and the similarities are apparently so intermixed and confusing that he is fain to fall back on the broad generic title of "Hindu"—however unscientific he may thereby stand confessed. Amongst a vast number of Hindu temples the following may be mentioned as particularly worthy of study:—those at Mukteswara and Bhuvanewar in Orissa, at Khajuraho, Bindraban, Udaipur, Benares, Gwalior, &c. The palace of the Hindu Raja Man Singh at Gwalior is one of the most beautiful architectural examples in India. So also are the palaces of Amber, Datia, Uraha, Dig and Udaipur.

### Indo-Saracenic.

Among all the periods and styles in India the characteristics of none are more easily recognizable than those of what is generally called the "Indo-Saracenic" which developed after the Mahomedan conquest. Under the new influences now brought to bear on it the architecture of India took on a fresh lease of activity and underwent remarkable modifications. The dome, not entirely an unknown feature hitherto, became a special object of development, while the arch, at no time a favourite constructional form of the Hindu builders, was now forced on their attention by the predilections of the ruling class. The minaret also became a distinctive feature. The requirements of the new religion,—the mosque with its wide spaces to meet the needs of organized congregational acts of worship—gave opportunities for broad and spacious treatments that had hitherto been to some extent denied. The abhorrence of idolatry set a tabu on the use of sculptured representations of animate objects in the adornment of the buildings, and led to the development

of other decorative forms. Great ingenuity came to be displayed in the use of pattern and of geometrical and foliated ornament. This Moslem trait further turned the attention of the builders to a greater extent than before to proportion and mass as means of giving beauty, mere richness of sculptured surface and the aesthetic and symbolic interest of detail being no longer to be depended on to the same degree.

The art was thus the gainer by the new conditions. It gained in power and variety much as "Classic" architecture gained under the Romans. But it equally lost something too. The Indo-Saracenic is apt to appear cold and hard. The writer was impressed by this on his first view of the Gwalior palace already mentioned. Though a Hindu building that palace has yet much of what might be called the more sophisticated quality of the Indo-Saracenic work as well as some similarity of detail. It has, being Hindu, a certain amount of sculptured ornament of animated forms, and the general effect of roundness, richness and interest thereby imparted seemed eloquent in suggestion as to what is lacking in so many of the Mahometan buildings.

#### Foreign Influence.

There would appear to be a conflict between archaeologists as to the extent of the effect on Indian art produced by foreign influence under the Mahometans. The extreme view on the one hand is to regard all the best of the art as having been due to foreign importation. The Gandharan sculptures with their Greek tendency, the development of new forms and modes of treatment to which allusion has been made, the similarities to be found between the Mahometan buildings of India and those of North Africa and Europe, the introduction of the minaret and, above all, the historical evidences that exist of the presence in India of Europeans during Mogul times, are cited in support of the theory. On the other hand those of the opposite school hold the foregoing view to be due to the prevailing European preconception that all light and leading must come by way of Europe, and the best things in art by way of Greece. To them the Gandharan sculpture, instead of being the best, is the worst in India even because of its Greek tincture. They find in the truly indigenous work beauties and significances not to be seen in the Græco-Bactrian sculptures, and point to those of Borobudai in Java, the work of Buddhist colonists from India, wonderfully preserved by reason of an immunity from destructive influences given by the insular position, as showing the best examples of the art extant. It is probable that a just estimate of the merits of the controversy, with respect to sculpture at any rate, cannot be formed till time has obliterated some of the differences of taste that exist between East and West.

To the adherents of the newer school the undisputed similarities between Indo-Mahometan and Hindu buildings outweigh those between Indian and Western Mahometan work, especially in the light of the dissimilarities between the latter. They admit the changes produced by the advent of Islam,

but contend that the art, though modified, yet remained in its essence what it had always been, indigenous Indian. The minaret, the dome, the arch, they contended, though developed under the Moslem influence, were yet, so far as their detailed treatment and craftsmanship are concerned, rendered in a manner distinctively Indian. Fergusson is usually regarded as the leader of the former school, while the latter and comparatively recent school has at present found an eager champion in Mr. E. B. Havell, whose works, on the subject are recommended for study side by side with those of the former writer. Mr. Havell practically discards Fergusson's racial method of classification into styles in favour of a chronological review of what he regards to a greater extent than did his famous precursor as being one continuous homogeneous Indian mode of architectural expression, though subject to variations from the influences brought to bear upon it and from the varied purposes to which it was applied.

#### Agra and Delhi.

Agra and Delhi may be regarded as the principal centres of the Indo-Saracenic style—the former for the renowned Taj Mahal, for Akbar's deserted capital of Fatehpur Sikri, his tomb at Secundra, the Moti Masjid and palace buildings at the Agra fort. At Delhi we have the great Jumma Masjid, the Fort, the tombs of Humayun, Safdar Jung, &c.; and the unique Qutb Minar. Two other great centres may be mentioned, because in each there appeared certain strongly marked individualities that differentiated the varieties of the style there found from the variety seen at Delhi and Agra, as well as that of one from that of the other. These are Ahmedabad in Gujarat and Bijapur on the Dekhan, both in the Bombay Presidency. At Ahmedabad with its neighbours Sirkhej and Champanir there seems to be less of a departure from the older Hindu forms, a tendency to adhere to the lintel and bracket rather than to have recourse to the arch, while the dome, though constantly employed, was there never developed to its full extent as elsewhere, or carried to its logical structural conclusion. The Ahmedabad work is probably most famous for the extraordinary beauty of its stone "jali"—or pierced lattice-work, as in the palm tree windows of the Sidi Sayyid Masjid.

#### Bijapur.

The characteristics of the Bijapur variety of the style are equally striking. They are perhaps more distinctively Mahometan than those of the Ahmedabad buildings in that here the dome is developed to a remarkable degree, indeed the tomb of Mahmud—the well-known "Gol Gumbaz"—is cited as showing the greatest space of floor in any building in the world roofed by a single dome, not even excepting the Pantheon. The lintel also was here practically discarded in favour of the arch. The Bijapur style shews a bold masculine quality and a largeness of structural conception that is unequalled elsewhere in India; though in richness and delicacy it does not attempt to rival the work of the further North. In this we recognize among other influences

that of the prevailing material, the hard uncompromising Dekkan basalt. In a similar manner the characteristics of the Ahmedabad work with its greater richness of ornamentation are bound up with the nature of the Gujarati freestone, while at Delhi and Agra the freer

choice of materials available—the local red and white sandstones, combined with access to marble and other more costly materials—was no doubt largely responsible for the many easily recognizable characteristics of the architecture of these centres.

## II. MODERN.

The modern architectural work of India divides itself sharply into two classes. There is first that of the indigenous Indian "Master-builder" to be found chiefly in the Native States, particularly those in Rajputana. Second there is that of British India, or of all those parts of the peninsula wherever Western ideas and methods have most strongly spread their influence, chiefly, in the case of architecture, through the medium of the Department of Public Works. The work of that department has been much unadverted upon as being all that building should not be, but, considering it has been produced by men to whom it was admittedly not the *metier*, and who were necessarily contending with lack of expert training on the one hand and with departmental methods on the other, it must be conceded that it can shew many notable buildings. Of recent years there has been a tendency on the part of professional architects to turn their attention to India, and a few of these have even been drafted into the service of Government as the result of a policy initiated in Lord Curzon's Viceroyalty. In time, therefore, and with the growth of the influence of these men, such of the reproach against the building of the British in India as was just and was not merely thoughtlessly maintained as a corollary to the popular jape against everything official, may gradually be removed. If this is so as to Government work progress should be even more assured in the freer atmosphere outside of official life. Already in certain of the greater cities, where the trained modern architect has established himself, in private practice, there are signs that his influence is beginning to be felt. He still complains, however, that the general public of India needs much educating up to a recognition of his value, both in a pecuniary sense and otherwise. It is also to be observed that the survival of a relic of the popular idea of the time before his advent, to the effect that though an architect might occasionally "design"

a building it was always an engineer who built it, is still indicated by the architect in some cases deeming it advisable to style himself "architect and engineer."

To the work of the indigenous "master-builder" public attention has recently been drawn with some prominence, and the suggestion is being pressed that efforts should be directed towards devising means for the preservation of what is pointed out to be a remarkable survival—one of the few in the world—of "living art," but which is threatened with extinction by reason of the spread of Western ideas. The matter has assumed the form of a controversy centring round the question of that much discussed project the building of the Government of India's new capital at Delhi. It is urged that this project should be utilized to give an impetus to Indian rather than to Western art. Those who plead for the preservation of the art appear for the most part to be adherents of the "indigenous Indian" school of archaeologists already mentioned. They have mustered a considerable following not only amongst the artistic public of England and India but even within the Government services. The controversy is, however, too strictly one of the moment, and too purely technical, for its merits to be judged by the general reader or discussed here. Its claim on our attention lies in the fact that it affords an added interest for the tourist, who may see good examples of the "master-builder's" work in nearly every native town and bazaar in India. The town of Lasikar in Gwalior State may be cited as peculiarly rich in instances of picturesque modern Indian street architecture, while at Jaipur, Udaipur, Benares, &c., this class of work may be studied in many different forms both civil and religious, and the extent, to which the alleged "unbroken tradition from the past" exists may be gauged by the traveller who is architect enough for the purpose.

## Archæology.

The archæological treasures of India are as varied as they are numerous. Those of the pre-Muhammadan period may roughly be divided into (1) architectural and sculptural monuments and (2) inscriptions. No building or sculpture in India with any pretensions to be considered an example of architecture or art can be ascribed to a time earlier than that of Asoka (circa 250 B.C.). In the pre-Asoka architecture of India, as in that of Burma or China at the present day, wood was solely or almost solely employed. Even at the close of the 4th century, R.C. Megasthenes, the Greek Ambassador at the court of Chandragupta, grandfather of Asoka, describes Pataliputra, the capital of the Indian monarch, as "surrounded by a wooden wall pierced with loop-holes for the discharge of arrows." If the capital itself was thus defended, we can easily infer that the architecture of the period was wooden. And long after stone was introduced the lithic styles continued to be influenced by, or copied from, the wooden.

**Monumental Pillars.**—The first class of works that we have to notice are the monumental pillars, known as *stûpas*. The oldest are the monolithic columns of Asoka, nearly thirty in number, of which ten bear his inscriptions. Of these the Lauriya-Nandangarh column in the Champaran District, Tirhut, is practically uninjured. The capital of each column, like the shaft, was monolithic, and comprised three members, *viz.*, a Persepolitan bell, abacus, and crowning sculpture in the round. By far the best capital of Asoka's time was that exhumed at Sarnath near Benares. The four lions standing back to back on the abacus are carved with extraordinary precision and accuracy. Of the post-Asokan period one pillar (B.C. 150) stands to the north-east of Benares in the Gwalior State, another in front of the cave of Karli (A.D. 70), and a third at Eran in Central Provinces belonging to the 5th Century, A. D. All these are of stone; but there is one of iron also. It is near the Qutb Minar at Delhi, and an inscription on it speaks of its having been erected by a king called Chandra, identified with Chandragupta II. (A.D. 375-413) of the Gupta dynasty. It is wonderful "to find the Hindus at that age forging a bar of iron larger than any that have been forged even in Europe at a very late date, and not frequently even now." Pillars of later style are found all over the country, especially in the Madras Presidency. No less than twenty exist in the South Kanara District. A particularly elegant example faces a Jaina temple at Mudabidri, not far from Mangalore.

**Topes.**—*Stûpas*, known as *dagabas* in Ceylon and commonly called Topes in North India, were constructed either for the safe custody of relics hidden in a chamber often near the base or to mark the scene of notable events in Buddhist or Jaina legends. Though we know that the ancient Jains built *stûpas*, no specimen of Jaina *stûpas* is now extant. Of those belonging to the Buddhists, the great Tope of Sanchi in Bhopal, is the most intact and entire of its class. It consists of a low circular drum supporting a hemispherical dome of less diameter. Round the drum is an open passage for circum-

ambulation, and the whole is enclosed by a massive stone railing with lofty gates facing the cardinal points. The gates are essentially wooden in character, and are carved, inside and out, with elaborate sculptures. The *stûpa* itself probably belonged to the time of Asoka, but as Dr. Marshall's recent explorations have conclusively shown, the railing and the gateways were at least 150 and 200 years later, respectively. Other famous Buddhist *stûpas* that have been found are those of Bharhut between Allahabad and Jubbulpore, Amravati in the Madras Presidency, and Piprahwa on the Nepalese frontier. The tope proper at Bharhut has entirely disappeared, having been utilised for building villages, and what remained of the rail has been removed to the Calcutta Museum. The bas-reliefs on this rail which contain short inscriptions and thus enable one to identify the scenes sculptured with the *Jâtakas* or Birth Stories of Buddha give it a unique value. The *stûpa* at Amravati also no longer exists, and portions of its rail, which is unsurpassed in point of elaboration and artistic merit, are now in the British and Madras Museums. The *stûpa* at Piprahwa was opened by Mr. W. C. Peppe in 1898, and a stucco or soap-stone reliquary with an inscription on it was unearthed. The inscription, according to many scholars, speaks of the relics being of Buddha and enshrined by his kinsmen, the Sakyas. And we have thus here one of the *stûpas* that were erected over the ashes of Buddha immediately after his demise.

**Caves.**—Of the rock excavations which are one of the wonders of India, nine-tenths belong to Western India. The most important groups of caves are situated in Bhaja Bedsa, Karli, Kanhari, Junnar, and Nasik in the Bombay Presidency, Ellora and Ajanta in Nizam's Dominions, Barabar 16 miles north of Gaya, and Udayagiri and Khandagiri 20 miles from Cuttack in Orissa. The caves belong to the three principal sects into which ancient India was divided, *viz.*, the Buddhists, Hindus and Jains. The earliest caves so far discovered are those of Barabar which were excavated by Asoka and his grandson Dasaratha, and dedicated to Ajivikas, a naked sect founded by Makkhali Gossala. This refutes the theory that cave architecture was of Buddhist origin. The next earliest caves are those of Bhaja, Pitalkhora and cave No. 9 at Ajanta and No. 19 at Nasik. They have been assigned to 200 B.C. by Fergusson and Dr. Burgess. But there is good reason to suppose from Dr. Marshall's recent researches and from epigraphic considerations that they are considerably more modern. The Buddhist caves are of two types—the *chaityas* or chapel caves and *viharas* or monasteries for the residence of monks. The first are with vaulted roofs and horse-shoe shaped windows over the entrance and have interiors consisting of a nave and side aisles with a small *stûpa* at the inner circular end. They are thus remarkably similar to Christian basilicas. The second class consist of a hall surrounded by a number of cells. In the later *viharas* there was a sanctum in the centre of the back wall containing a large image of Buddha. Hardly a *chaitya* is found without one or more *viharas* adjoining it. Of the Hindu cave tem-

ples that at Elephanta near Bombay is perhaps the most frequented. It is dedicated to Siva and is not earlier than the 7th century A.D. But by far the most renowned cave-temple of the Hindus is that known as Kailasa at Ellora. It is on the model of a complete structural temple but carved out of solid rock. It also is dedicated to Siva and was excavated by the Rashtrakuta king, Krishna I, (A. D. 768), who may still be seen in the paintings in the ceilings of the upper porch of the main shrine. Of the Jaina caves the earliest are at Khandgiri and Udayagiri; those of the mediæval type, in Indra Sabha at Ellora; and those of the latest period, at Ankai in Nasik. The ceilings of many of these caves were once adorned with fresco paintings. Perhaps, the best preserved among these are those at Ajanta, which were executed at various periods between 350-650 A.D. and have elicited high praise as works of art. Copies were first made by Major Gill, but most of them perished by fire at the Crystal Palace in 1866. The lost ones were again copied by John Griffiths of the Arts School, Bombay, half of whose work was similarly destroyed by a fire at South Kensington. They were last copied by Mrs. Herrington in 1911.

**Gandhara Monuments.**—On the north-west frontier of India, anciently known as Gandhara, are found a class of remains, ruined monasteries and buried *stupas*, among which we notice for the first time representations of Buddha and the Buddhist pantheon. The free use of Corinthian capitals, friezes of nude Krotos bearing a long garland, winged Atlantes without number, and a host of individual motifs clearly establish the influence of Hellenistic art. The mound at Peshawar, locally known as Shah-jik-e-Dheri, which was explored in 1909, brought to light several interesting sculptures of this school together with a reliquary casket, the most remarkable bronze object of the Gandhara period. The inscription on the casket left no doubt as to the mound being the *stupa* raised over the bones of Buddha by the Indo-Scythian king Kanishka. They were presented by Lord Minto's Government to the Buddhists of Burma and are now enshrined at Mandalay. To about the same age belong the *stupas* at Manikyal in the Punjab opened by Ranjit Singh's French Generals, Ventura and Court, in 1830. Some of them contained coins of Kanishka.

**Structural Temples.**—Of this class we have one of the earliest examples at Sanchi, and another at Tigova in the Central Provinces. In South India we have two more examples, *viz.*, Lad Khan and Durza temples at Aihole in Bijapur. All these belong to the early Gupta period and cannot be later than 500 A.D. The only common characteristic is flat roofs without spires of any kind. In other respects they are entirely different and already here we mark the beginning of the two styles, Indo-Aryan and Dravidian, whose differences become more and more pronounced from the 7th century onwards. In the Indo-Aryan style, the most prominent lines tend to the perpendicular, and in the Dravidian to the horizontal. The salient feature of the former again is the curvilinear steeple, and of the latter, the pyramidal tower. The most notable examples of the first kind are to be found among the temples of Bhu-

baneswar in Orissa, Khajarah in Bundelkhand, Osia in Jodhpur, and Dilwara on Mount Abu. One of the best known groups in the Dravidian style is that of the Maiallapuram Rathas, or 'seven Pagodas', on the seashore to the south of Madras. They are each hewn out of a block of granite, and are rather models of temples than *rathas*. They are the earliest examples of typical Dravidian architecture, and belong to the 7th century. To the same age has to be assigned the temple of Kailaspath at Conjeevaram, and to the following century some of the temples at Aihole and Pattadakal of the Bijapur District, Bombay Presidency, and the monolithic temple of Kailasa at Ellora, referred to above. Of the later Dravidian style the great temple at Tanjore and the Srirangam temple of Trichinopoly are the best examples.

Intermediate between these two main styles comes the architecture of the Decan, called Chalukyan by Fergusson. In this style the plan becomes polygonal and star-shaped instead of quadrangular; and the high-storied spire is converted into a low pyramid in which the horizontal treatment of the Dravidian is combined with the perpendicular of the Indo-Aryan. Some fine examples of this type exist, at Dambal, Rattihali, Tiliwalli and Hangal in Dharwar, Bombay Presidency, and at Ittagi and Warankal in Nizam's Dominions. But it is in Mysore among the temples at Halebid, Belur, and Sonnathpur that the style is found in its full perfection.

**Inscriptions.**—We now come to inscriptions, of which numbers have been brought to light in India. They have been engraved on varieties of materials, but principally on stone and copper. The earliest of these are found incised in two distinct kinds of alphabet, known as Brahmi and Kharoshthi. The Brahmi was read from left to right, and from it have been evolved all the modern vernacular scripts of India. The Kharoshthi was written from right to left, and was a modified form of an ancient Aramaic alphabet introduced into the Punjab during the period of the Persian domination in the 5th century, B.C. It was prevalent up to the 4th century, A.D., and was supplanted by the Brahmi. The earliest datable inscriptions are the celebrated edicts of Asoka. One group of these has been engraved on rocks, and another on pillars. They have been found from Shahbazgarhi 40 miles north-east of Peshawar to Nigliva in the Nepal Terai, from Gumar in Kathiawar to Dhauli in Orissa, from Kalsi in the Lower Himalayas to Siddapur in Mysore, showing by the way the vast extent of territory held by him. The reference in his Rock Edicts to the five contemporary Greek Princes, Antiochus II. of Syria, Ptolemy Philadelphus, and so forth is exceedingly interesting, and fixes B.C. 269 as the date of his coronation. His Rumindul pillar inscription, again, discovered in Nepal Terai, now settles, beyond all doubt, the birth-place of Buddha which was for long disputed. Another noteworthy record is the inscription of the Besnagar Pillar. The pillar had been known for a long time, but Dr. Marshall was the first to notice the inscription on it. It records the erection of this column, which was a Garuda pillar, in honour of the god Vasudeva by one Heliodoros, son of Dion, who is described as an Envoy of King Antialcidas of Taxila.

Hellodoros is herein called a *Bhagavata*, which shows that though a Greek he had become a Hindu and presumably a Vaishnava. Another inscription worth noting and especially in this connection is that of Cave No. 10 at Nasik. The donor of this cave, Ushavadata, who calls himself a Saka and was thus an Indo-Scythian, is therein spoken of as having granted three hundred thousand kine and sixteen villages to gods and Brahmans and as having annually fed one hundred thousand Brahmans. Here is another instance of a foreigner having embraced Hinduism. Thus for the political, social, economical and religious history of India at the different periods the inscriptions are invaluable records, and are the only light but for which we are 'forlorn and blind.'

**Saracenic Architecture.**—This begins in India with the 13th century after the permanent occupation of the Muhammadans. Their first mosques were constructed of the materials of Hindu and Jaina temples, and sometimes with comparatively slight alterations. The mosque called *Adhai-din-ka-jhonpra* at Ajmer and that near the Qutb Minar are instances of this kind. The Muhammadan architecture of India varied at different periods and under the various dynasties, imperial and local. The early Pathan architecture of Delhi was massive and at the same time was characterised by elaborate richness of ornamentation. The Qutb Minar and tombs of Alauddin and Ala-ud-din Khilji are typical examples. Of the Sharqi style we have three mosques in Jaunpur with several tombs. At Mandu in the Dhar State, a third form of Saracenic architecture sprung up, and we have here the Jami Masjid, Hoshang's tomb, Jahaz Mahall and Hindola Mahall as the most notable instances of the secular and ecclesiastical styles of the Malwa Pathans. The Muhammadans of Berbal again developed their own style, and Pandua, Malda, and Gaur teem with the ruins of the buildings of this type, the important of which are the Adina Masjid of Sikandar Shah, the Elakhi mosque, Kadam Rasul Masjid, and so forth. The Bahmani dynasty of Gulbarga and Bidar were also great builders, and adorned their capitals with important buildings. The most striking of these is the great mosque of Gulbarga, which differs from all mosques in India in having the whole central area covered over so that what in others would be an open court is here roofed by sixty-three small domes. "Of the various forms which the Saracenic architecture assumed," says Fergusson, "that of Ahmedabad may probably be considered to be the most elegant." It is notable for its carved stone work; and the work of the perforated stone windows in Sidi Sayyid's mosque, the carved niches of the minars of many other mosques, the sculptured *Mihirabs* and domed and panelled roofs is so exquisite that it will rival anything of the sort executed elsewhere at any period. No other style is so essentially Hindu. In complete contrast with this was the form of architecture employed by the Adil Shahi dynasty of Bijapur. There is here relatively little trace of Hindu forms or details. The principal buildings now left at Bijapur are the Jami Masjid, Gagan Mahall, Mihir Mahall, Ibrahim Rauza and mosque and the Gol Gumbaz. Like their predecessors, the Pathans of Delhi, the Moghuls

were a great building race. Their style first began to evolve itself during the reign of Akbar in a combination of Hindu and Muhammadan features. Noteworthy among the emperor's buildings are the tomb of Humayun, and the palaces at Fatehpur Sikri and Agra. Of Jahangir's time his mosque at Lahore and the tomb of Itmad-ud-daula are the most typical structures. "The force and originality of the style gave way under Shah Jahan to a delicate elegance and refinement of detail." And it was during his reign that the most splendid of the Moghul tombs, the Taj Mahal at Agra, the tomb of his wife Mumtaz Mahall, was constructed. The Moti Masjid in Agra Fort is another surpassingly pure and elegant monument of his time.

**Archæological Department.**—As the archæological monuments of India must attract the attention of all intelligent visitors, they would naturally feel desirous to know something of the Archæological Department. The work of this Department is primarily two-fold, conservation, and research and exploration. None but spasmodic efforts appear to have been made by Government in these directions till 1870 when they established the Archæological Survey of India and entrusted it to General (afterwards Sir) Alexander Cunningham, who was also the first Director-General of Archæology. The next advance was the initiation of the local Surveys in Bombay and Madras three years after. The work of these Surveys, however, was restricted to antiquarian research and description of monuments, and the task of conserving old buildings was left to the fitful efforts of the local Governments, often without expert guidance or control. It was only in 1878 that the Government of India under Lord Lytton awoke to this deplorable condition, and sanctioned a sum of £3 lakhs to the repair of monuments in United Provinces, and soon after appointed a conservator, Major Cole, who did useful work for three years. Then a reaction set in, and his post and that of the Director-General were abolished. The first systematic step towards recognising official responsibility in conservation matters was taken by Lord Curzon's Government, who established the seven Archæological Circles that now obtain, placed them on a permanent footing, and united them together under the control of a Director-General, provision being also made for subsidising local Governments out of imperial funds, when necessary. The Ancient Monuments Preservation Act was passed for the protection of historic monuments and relics especially in private possession and also for State control over the excavation of ancient sites and traffic in antiquities. Under the direction of Dr. J. H. Marshall, C.I.E., Director-General of Archæology, a comprehensive and systematic campaign of repair has been prosecuted, and the result of it is manifest in the present altered conditions of old buildings. One has only to see for example the Moghul buildings at Agra, Delhi, Lahore and Ajmer, in order to be convinced how the work of careful reconstruction and repair has converted these decayed and desecrated monuments with their modern excrescences into edifices of unrivalled loveliness. Another noteworthy feature of this work has been the rescue of many of these buildings from profane and sacrilegious uses. It is well-



known that the superb Pearl Mosque of Jahangir in the Lahore Fort contained a Government treasury, and the Sleeping Hall of Shah Jahan served as a Church for the British troops. At Bijapur two mosques have been recovered, one of which was used as Dak Bungalow and the other as Post Office. The local Kutcherry has now been expelled from the lovely masjid of Sidi Sayyid at Ahmedabad. The Cave temples at Trichinopoly are no longer godowns. Nor has

research work been in any way neglected under the new order of things. A unique feature of it for the first time introduced under the guidance and advice of Dr. Marshall has been the scientific excavation of buried sites, such as Sarnath where Buddha preached his first sermon, Kasia or Kusinara where he died, Saheth-Maheth the ancient Sravasti Taxila or Takshasila, the seat of the ancient Hindu University, and so forth.

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## The Opium Trade.

Two descriptions of opium must be distinguished. *Bengal opium* which is manufactured from poppy grown in the United Provinces; and *Malwa opium* which is almost entirely produced in certain Native States in Central India and Rajputana.

**Bengal Opium.**—Cultivation of poppy is only permitted under license. The cultivator to whom advances are made by Government free of interest is required to sell the whole of his production to the Opium Factory at Ghazipur at a rate fixed by Government, now Rs. 6 per seer of 70<sup>2</sup> consistency. The area licensed for cultivation has in recent years been much reduced as a consequence of the agreement between the Government of India and the Chinese Government, and is now restricted to the United Provinces. The following are the figures of the area under cultivation and of production:

	Average under cultivation.	Maunds of opium produced.	Number of chests made.
1910-11	362,868	44,926	23,611
1909-10	354,577	67,666	36,172
1908-9	361,832	61,803	33,895
1907-8	488,548	71,340	51,230
1906-7	564,585	93,154	44,389

At the Factory two classes of opium are manufactured:

(1) "Provision" opium intended for export to foreign countries. This opium is made up in balls or cakes each weighing 3½ lbs., 70 cakes weighing 140½ lbs. being packed in a chest.

(2) "Excise" opium intended for consumption in British India. This is made up in cubic packets each weighing one seer, 60 packets being packed in one chest. It is of higher consistency than "provision" opium.

"Provision" opium is sold by public auction in Calcutta; the quantity to be sold being fixed by Government. This quantity has been reduced in recent years in accordance with the agreement with China, the figures being 15,440 chests in 1911 and 6,700 chests in 1912.

### Statistics of Trade.

The difference between the cost of manufacture and the price realised at these sales may be regarded as the duty levied by Government:—

	Number of chests sold.	Average price realised at auction sales per chest.	Average cost of manufacture per chest.
1910-11	37,560	2,890	525
1909-10	42,300	1,612	515
1908-9	45,900	1,383	525
1907-8	48,900	1,360	503
1906-7	52,800	1,390	538

The exports of Bengal opium to foreign countries have been in the last three years:—

	Number of chests.	Value. Rs.
1912-13	19,824	56,956,940
1911-12	24,162	67,148,206
1910-11	37,121	106,139,828

**Malwa Opium.**—The poppy from which Malwa opium is manufactured is grown chiefly in the Native States of Indore, Gwalior, Bhopal, Jaora, Dhar, Rutlam, Mewar and Kotah. The British Government has no concern with the cultivation of the poppy, or the manufacture of the opium: but it regulates, under the system explained below, the import of Malwa opium into, and the transport through, its territories. As the chief market for Malwa opium is China, and as the States in which the drug is produced have no access to the sea, except through British territory, the British Government are able to impose a duty on the importation of the drug on its way to Bombay for exportation by sea.

No statistics of cultivation or production are available. The poppy is sown in November, the plants flower in February, and by the end of March the whole of the opium has been collected by the cultivators who sell the raw opium to the village bankers. It is then bought up by the large dealers who make it up into balls of about two ounces and store it until it is ready for export, usually in September or October. The opium is of 90° to 95° consistency and is packed in half chests: considerable dryage takes place in the case of new opium while transported to Bombay.

To enable Malwa opium to reach Bombay a pass from the Opium Agent, or his Deputies, is required. This pass is not granted until the duty imposed by the Government of India has been paid. This duty was until 1912 at the rate of Rs. 700 per chest: but was raised to Rs. 1,200 in that year consequent on the introduction of a system similar to that applicable to Bengal opium. Under this system the Collector of Customs, Bombay, sells the right of exporting opium to the highest bidder at monthly auction sales. On payment of the price bid and of duty at the enhanced rate the bidder is given a certificate authorising him to import opium from Malwa. The importation of Malwa opium into British India is now practically restricted to the quantity which may be exported to China. This quantity is fixed by Government in pursuance of its agreement with China, the figures being 12,100, 15,580 and 14,560 chests respectively in the calendar years 1910, 1911 and 1912.

Practically the whole of the Malwa opium exported from Bombay goes to China. There is no market for it in the Straits Settlements. A few chests annually are shipped to Zanzibar. The quantity and value of exports from Bombay in the last three years were as follows:—

	Quantity.	Value. Rs.
1912-13	11,550 chests	55,259,380
1911-12	14,027 "	63,742,691
1910-11	6,800 "	21,499,920

**Revenue**—The revenue derived by the Government of India from opium in the last three years is as follows:—

	£
1910-11	7,521,962
1911-12	5,961,278
1912-13	5,082,800 (Revised Estimate)
1913-14	1,445,000 (Budget Estimate)

**Agreement with China.**—The fluctuations in the revenue derived from opium in the last three years are directly attributable to the trade conditions arising out of the limitation of opium exports. In 1907 being satisfied of the genuineness of the efforts of the Chinese Government to suppress the habit of consuming opium in China, the Government of India agreed to co-operate by gradually restricting the amount of opium exported from India to China. In 1908 an arrangement was concluded by which the total quantity of opium exported from India was to be reduced annually by 5,100 chests from an assumed standard of 67,900 chests. Under a further agreement, signed in May 1911, the cessation of the trade was to be accelerated on evidence being shown of the suppression of the native production of opium in China, and in

accordance with this agreement a further limitation was placed on exports to Chinese ports. The reduction of exports led to an increase in the price of the drug in China and a corresponding rise in the price obtained in India at the auction sales. For some considerable time, however, in 1912 the trade in China was paralysed by the imposition by Provincial Governors in defiance of instructions from the Central Government of restrictions on the importation and sale of Indian opium. Stocks accumulated rapidly at Shanghai and Hongkong and the position in December 1912 had become so acute that a strong and influential demand was made on the Government of India to relieve the situation by the suspension of sales. Sales were accordingly postponed both of Bengal and Malwa opium and in order to afford the Malwa trade the most complete relief, the Government of India undertook to purchase for its own use 11,400 chests of Malwa opium which remained to be exported in 1913. The present position is that the export trade to China is to cease in 1915. Exports of Malwa opium to China will, as a matter of fact, cease at the end of 1913. Exports to countries other than China will, of course, not be directly affected.

## Routes between India and Europe.

The Indian port for the direct journey to and from Europe is Bombay. There are six lines of steamers by which the journey to and from the West *via* Bombay can be performed, either by sea all the way or- and in some cases only—by sea part of the way and by rail across Europe. They are the P. & O., the Anchor Line, the City and Hall Line, the Austrian Lloyd, the Messageries Maritimes and the Rubattino. The Natal line steamers are available for Western passages only, the steamers sailing round the Cape on their Eastward voyages. There are other services between Calcutta and the West, by steamers sailing round Ceylon, and several lines connect Colombo with Europe. Of the latter the Orient, the North German and the Bibby Lines are the chief, besides the P. & O. The Bibby service extends to Rangoon. The new railway between India and Ceylon greatly increases the importance by the Colombo route for Southern India. The shortest time between London and Bombay is 14 days.

### The P. & O.

The P. & O. steamers run weekly from Bombay and London, leaving Bombay on Saturday and London on Friday. Alternate

sailings each way are direct. In other weeks a special steamer runs from Bombay to Aden where it connects with the Australian Homeward Mail and similarly, for the outward voyage, passengers and baggage and mails are transferred on alternate weeks to a steamer at Aden which proceeds thence direct to Bombay. The P. & O. carry the postal mails. The steamers call at Aden, Port Said, Marseilles, and Gibraltar. Passengers are not allowed to land at Aden but there is ordinarily time for them to spend some hours ashore at Port Said and Marseilles and a shorter time at Gibraltar. Passengers may travel westward from Port Said by any of the following methods:—

By fast special mail steamer connecting with the liner at Port Said and running to Brindisi; thence by special train to Calais; thence by ordinary channel steamer to Dover and so to London;

By the liner to Marseilles; thence by special P. & O. express to Calais and so by Dover to London; or

By Liner to Plymouth or Tilbury Dock.

The arrangements for the eastward voyage are similar, in reverse order, with the exception that no call is made at Plymouth.

The following are the single ticket rates from Bombay to Europe:—

	First Saloon.		Second Saloon.	
	A.	B.	A.	B.
	Rs.	Rs.	Rs.	Rs.
London, with option of landing at Plymouth ..	858	759	627 or	528
London <i>via</i> Marseilles, including rail ..	894	795	664 or	565
London <i>via</i> Marseilles, including rail and sleeping car.	936	837	..	..
London <i>via</i> Brindisi including rail and sleeping car.	936	837	..	..
Gibraltar or Marseilles .. .. .	792	693	594 or	495
Brindisi .. .. .	792	693	..	..
Aden .. .. .	313·8	..	231 or	214·8
Suez or Port Said .. .. .	720	..	501 or	402

Free tickets are issued to Karachi passengers by B. I. S. N. Co.'s steamers between Bombay and Karachi for either eastward or westward voyage. The transfer from the B. I. steamer to the P. & O. steamer, or *vice-versa*, is made in Bombay harbour by launch, without going ashore.

The following are the return ticket rates between Bombay and Europe, the tickets being available for 24 months:—

	1st Class.	2nd Class.	
	Rs.	A. Rs.	B. Rs.
To London by sea .. .. .	..	..	..
Returning—	..	..	..
From London (by Sea) .. .. .	1,287-0	940-8	792-0
From London ( <i>via</i> Marseilles, including rail) .. .. .	1,339-8	985-12	837-4
From Marseilles .. .. .	1,237-8	915-12	767-4
To London ( <i>via</i> Marseilles, including rail) .. .. .	..	..	..

	1st Class	2nd Class.	
	Rs.	A. Rs.	B. Rs.
Returning—			
From London (via Marseilles, including rail) .. ..	1,392-0	1,031-0	882-8
From London (by sea) .. ..	1,339-8	985-12	837-4
From Marseilles .. ..	1,290-0	961-0	812-8
To Marseilles.			
Returning—			
From Marseilles .. ..	1,188-0	891-0	742-8
From London (via Marseilles including rail) .. ..	1,290-0	961-0	812-8
From London (by Sea) .. ..	1,237-8	915-12	767-4
To Brindisi.			
Returning—			
From Brindisi or Marseilles .. ..	1,188-0	....	....
From London (by Sea) .. ..	1,237-8	....	....
From London (via Marseilles, including rail) .. ..	1,290-0	....	....
To London via Brindisi.			
Returning the same way or via Marseilles including rail and sleeping car by the Special Trains in both directions .. ..	1,476-0	....	....
To London via Marseilles.			
Returning the same way or via Brindisi including rail and sleeping car, by the Special Trains, in both directions.	1,476-0	....	....

The first saloon inside cabins on the Main deck of the Mail Steamers are let at the reduced rate of Rs. 1,039-8-0 from Bombay to Marseilles and back, or Rs. 1,138-8-0 from Bombay to London and back.

First Saloon passengers are allowed 3 cwt. of personal Baggage free of Freight; Second Saloon passengers and servants  $1\frac{1}{2}$  cwt. each; Children over three and under 12 years of age half these weights; Ayahs and other native servants  $1\frac{1}{2}$  cwt. each free.

#### Anchor Line.

The Anchor Line steamers run between Bombay and Liverpool and there are ordinarily two steamers each way per month. Westward-bound steamers call at Marseilles, so that passengers can leave the ship there if they wish. Other calls are at Port Said and Gibraltar. Eastward bound steamers do not call at Marseilles. Free tickets by B. I. S. N. Co.'s steamers are issued to Karachi passengers to and from Bombay. The passage rates westward from Bombay are as follows:—

Fares from Bombay (all one class).	Single Tickets.	Return Tickets.	Single Tickets for Native Servants.
	Rs.	Rs.	Rs.
To Suez .. ..	413	627	....
To Port Said .. ..	446	677	....
To Marseilles .. ..	578	..	22Q
To Marseilles and back from Liverpool .. ..	..	924	....
To London overland from Marseilles .. ..	65	....	....
To London overland from Marseilles and back from Liverpool .. ..	..	999	....
To Liverpool .. ..	605	957	264

Passengers are allowed to take, free of charge, 40 cubic feet of baggage, excess being charged at the rate of a shilling per cubic foot. Dogs are carried and the charge for them is Rs. 50 per animal—arrangements must be made with the ship's butcher as to feeding.

The voyage Bombay to Liverpool occupies approximately 30 days. Bombay Agents: W. & A. Graham & Co.

#### Ellerman's "City" & "Hall" Lines.

The City and Hall Liners sail westward for the most part from Karachi, via Bombay. Some ships go direct from one port and others direct from the other. They sail to Liverpool and passengers can be booked via Marseilles and Overland either Eastward or Westward. Most of the steamers have both first and second class accommodation. Others have one class only. Passengers booking their berths in Karachi for steamers sailing from Bombay are

given free tickets from Karachi to Bombay by a British India S. N. Co.'s steamer. They are transferred immediately on arrival in Bombay to the Ellerman liner if she is sailing the same day; otherwise they are landed and at the same time informed as to when the steamer for Europe sails.

Adult 1st class passengers are allowed 3 cwt. of luggage free, subject to a limit in measurement of 40 feet. Children and European servants travelling first class are allowed half that quantity. Children and native servants travelling 2nd class are allowed 80 lbs. Bicycles in crates or cases are specially charged for.

Single fares from Karachi or Bombay :—

	First Saloon.	Second Saloon.	Native Servants.
To Marseilles or Genoa (Return ex-Marseilles or Naples) ..	Rs. 578	Rs. 429	Rs. 253
To London via Marseilles or Genoa including rail (returning ex-Liverpool or Naples at Steamer's option) ..	853	489	..
To Liverpool by sea ..	605	462	264
To London via Marseilles ex-Genoa including rail return via Marseilles ..	653	480	...

The return fare rates are as follows; the tickets holding good for two years :—

	First Saloon.	Second Saloon.	Native Servants.
To Marseilles or Genoa (Return ex-Marseilles or Naples) ..	Rs. 891	Rs. 649	Rs. 380
To London via Marseilles or Genoa including rail (returning ex-Liverpool or Naples at Steamer's option) ..	990	737	....
To Liverpool by sea ..	957	704	396
To London via Marseilles ex-Genoa including rail return via Marseilles ..	1,091	809	....

Bombay Agents: Killick, Nixon & Co.

### Austrian Lloyd.

Austrian Lloyd steamers sail regularly between Bombay and Trieste, a steamer leaving each place on the 1st and 16th of every month. During the homeward and outward seasons the journey between Bombay and Trieste and *vice versa* is performed in 14 days. Ships call at Venice during March to June, on the Westward voyage, *en route* to Trieste. In addition to the foregoing, there is a service of slower boats, running approximately once a month and occupying about 20 days between Bombay and Trieste.

Through bookings to London can be made. Dogs and birds may be taken, on payment. Passengers sailing westward can hand over their heavy baggage before arrival at Port Said for free transport by sea to London. Similarly, baggage can be sent from London in advance to be picked up at Port Said on the outward voyage.

The following are the single fares from Bombay (or from Karachi by steamers from Karachi only) :—

	Accelerated Line.		Ordinary Line.
	(Saloon.)	Inter-mediate.	(Single Saloon.)
To Aden ..	Rs. 225	Rs. 150	Rs. 173
To Suez ..	375	285	315
To Port Said ..	390	300	330
To Trieste or * Venice ..	500	350	450

The fare for a deck passage, with food, to Trieste is Rs. 150; without food, Rs. 180\*  
Similar passages to intervening ports at lower charges.

**Messageries Maritimes.**

Steamers of the Messageries Maritimes sail between Bombay and Marseilles, touching at Aden and Port Said, monthly throughout the year. Free passages are granted by B. I. S. N. Co.'s boats for Karachi passengers for the voyage between Karachi and Bombay. Fares :—

(Single : from Bombay).

				First Class.		Second Class.	Third Class.
				A.	B.	Rs.	Rs.
To Marseilles	..	..	..	Rs. 792	Rs. 594	495	225
To London via Marseilles	..	..	..	858	660	528	270

(Return : from Bombay).

				First Class.		Second Class.	Third Class.
				A.	B.	Rs.	Rs.
To Marseilles	..	..	..	Rs. 1,188	Rs. 891	743	405
To London via Marseilles	..	..	..	1,287	990	792	495

**Rubattino.**

Monthly sailings from Bombay for Messina, Naples and Genoa, Messina ordinarily being reached on the 17th day, Naples on the 18th and Genoa on the 20th. The usual baggage allowances are made and baggage is conveyed free by sea from Port Said to London by arrangements similar to those of the Austrian Lloyd.

Fares from Bombay to Naples or Genoa :—

Single Journey.				Return Journey.			
First Saloon.			Second Saloon.	First Saloon.			Second Saloon.
A Rate.	B Rate.	C Rate.		A Rate.	B Rate.	C Rate.	
Rs. 550	Rs. 500	Rs. 450	Rs. 350	Rs. 825	Rs. 750	Rs. 675	Rs. 525

The Austrian Lloyd, Messageries Maritimes and Rubattino have a joint arrangement by which passengers taking return tickets may travel one way by one line and return by one of the others.

**Natal Line.**

The steamers make their eastward voyages round South Africa. Westward sailings from Bombay to Weymouth usually once a month during the season.

Fares, Bombay to Weymouth (25 days):—First class, Rs. 375 to Rs. 420, according to class of steamer and position of berth. Cheap first tickets are issued for berths in 2-, 3-, and 4-berth cabins.

**Bibby Line.**

Two (in the season; sometimes three) sailings monthly from Rangoon, *via* Colombo and Marseilles, to Liverpool. Fares from Rangoon and Colombo:—

	Single.		Return.		
	1st Class.		1st Class, available for 4 months from Rangoon.	1st Class, available for 2 years.	
	From Rangoon	From Colombo		From Rangoon	From Colombo.
	Rs.	Rs.	Rs.	Rs.	Rs.
To Marseilles .. .. .	550	550	900	1,000	825
To London by sea returning from Liverpool ..	600	575	1,000	1,050	875
To London by sea returning from London <i>via</i> Marseilles.	..	..	1,025	1,100	900
To London <i>via</i> Marseilles .. .. .	625	625	1,050	1,150	975
To Marseilles returning from Liverpool by sea	..	..	950	1,025	850
To London by sea returning from Marseilles..	..	..	950	1,025	850

Free 1st class tickets, Tuticorin—Colombo are given to passengers from South India.

**Orient Line.**

Fortnightly sailings (Australian Mail) on Thursdays from Colombo to Port Said, Naples, Marseilles, Plymouth and London. Fares from Colombo:—

	1st Saloon.		2nd Saloon.	
	Single.	Return, 2 years.	Single.	Return, 2 years.
	Rs.	Rs.	Rs.	Rs.
Suez, Ismailia and Port Said .. .. .	495	743	462	693
	594	891		
	726	1,089		
Naples, Marseilles and Gibraltar .. .. .	561	842	495	743
	660	990		
	792	1,188		
Plymouth and London .. .. .	594	891	528	792
	693	1,040		
	858	1,288		

Concessions for tickets, Tuticorin—Colombo, are given to South India passengers. Tickets are issued for native servants.

It used to be possible to obtain cheap passages, eastward or westward, in cargo ("tramp") steamers. These are now next to impossible to secure, because as the steamers are not licensed to carry passengers, passengers have to sign on as members of the crew, and the recent extension of the Employers' Liability Act then involves the ship's owners in liability to compensation to them for a variety of causes.



## Train Services.

The following are the principal European train routes for east and west journeys, with booking charges. The fares are the same in either direction and breaks of journey are allowed *en route*.

From	To LONDON Via	Single Tickets.	
		1st Class.	2nd Class.
		Rs. a.	Rs. a.
MARSEILLES ..	Lyons, Dijon, Paris, Calais, Dover .. ..	102 0	70 0
" ..	Lyons, Geneva, Bale, Brussels, Ostend, Dover ..	125 0	84 0
BRINDISI ..	Foggia, Bologna, Turin, Dijon, Paris, Calais, Dover ..	137 0	93 0
" ..	Foggia, Naples, Rome, Venice, Milan, Paris, Calais, Dover ..	191 0	132 0
" ..	Foggia, Naples, Florence, Genoa, Nice, Marseilles, Lyons, Calais, Dover ..	207 8	142 8
" ..	Bologna, Milan, St. Gothard, Bale, Calais, Dover, or Boulogne and Folkestone ..	143 8	98 8
TRIESTE ..	Cervignano, Venice, Milan, Turin, Paris, Calais, Dover ..	138 8	96 4
" ..	Cervignano, Venice, Milan, Lucerne, Bale, Paris, Calais, Dover ..	136 0	94 8
" ..	Cervignano, Venice, Milan, Simplon, Montreux, Lausanne, Paris, Calais, Dover ..	134 0	94 0
" ..	Cervignano, Venice, St. Gothard, Lucerne, Calais or Boulogne and Folkestone ..	135 12	95 5
" ..	Cervignano, Milan, Como, Lucerne, Mayence, Rhine, steamer to Bonn, railway to Cologne, Calais, Dover ..	140 4	95 12
" ..	Gorz, Villah, Munich, Cologne, Ostend, Dover ..	120 8	77 8
VENICE ..	Milan, Arona, Gravelona, Simplon, Villeneuve, Montreux, Paris, Calais, Dover ..	121 10	85 4
" ..	Verona, Milan, Turin, Paris, Calais, Dover ..	125 12	88 0
" ..	Milan, Como, St. Gothard, Laon, Calais and Dover, or Boulogne and Folkestone ..	123 8	86 12
" ..	Milan, Como, St. Gothard, Lucerne, Paris, Calais, Dover ..	124 8	87 0
GENOA ..	Turin, Paris, Calais, Dover .. ..	109 0	75 8
" ..	Milan, Como, Lucerne, Calais, and Dover or Boulogne, Folkestone ..	112 0	78 0
" ..	Milan, St. Gothard, Bale, Paris, Calais, Dover ..	119 0	83 0
" ..	Milan, St. Gothard, Mayence, Rhine steamer to Bonn, Cologne, Brussels, Calais ..	121 8	82 8
" ..	Milan, Novara, Simplon, Montreux, Lausanne, Paris, Calais, Dover ..	111 0	77 10
" ..	Menton, Nice, Marseilles, Lyons, Paris, Calais, Dover ..	131 12	91 0
NAPLES ..	Rome, Pisa, Genoa, Turin, Paris, Calais, Dover ..	134 0	91 0
" ..	Rome, Florence, Genoa, Turin, Paris, Calais, Dover ..	159 0	109 2
" ..	Rome, Florence, Venice, Milan, Paris, Calais, Dover ..	167 8	115 0
" ..	Rome, Florence, Milan, St. Gothard Railway, Bale, Paris, Calais, Dover ..	144 0	99 0
" ..	Rome, Bologna, Venice, Verona, St. Gothard, Lucerne, Paris, Calais, Dover .. ..	165 0	114 0

## Indian Train Service.

The distances and railway fares from Bombay to the principal centres of other parts of India are as follow:—

	Miles.	1st Class.	2nd Class.
		Rs. a.	Rs. a.
Delhi, B.B. & C.I. Railway, via new Nagda-Muttra direct route .. ..	865	66 4	33 8
Delhi, G. I. P. Railway, via Agra .. ..	957	66 4	33 8
Simla, via Delhi .. ..	(28 hours)		
Calcutta, G.I.P. from Bombay, via Jubbulpore & Allahabad ..	1,197	103 5	52 11
Calcutta, G. I. P. from Bombay, via Nagpur .. ..	1,349	99 1	49 9
Madras, G. I. P. from Bombay, via Raichur .. ..	1,223	91 1½	45 9½
Lahore, via Delhi .. ..	794	68 6	34 4
	1,162	94 2	47 2

# The Indian Legislation, 1913.

BY

RATANLAL AND DHIRAJLAL.

*[Editors of the Bombay Law Reporter.]*

According to usual practice, all the important Bills of the year were brought up before and passed at, the Delhi Session of the Imperial Legislative Council.

## Indian Extradition Act.

The Indian Extradition Act, the first Act of the year, was enacted to effect two changes in the existing law. Under the law as it stood before the amendment, a District Magistrate alone was empowered to receive and execute warrants issued by Political Agents in certain cases. This power is extended to the chief Presidency Magistrate in the Presidency towns. Another amendment effected by the Act is that the Magistrate executing a Political Agent's warrant "may, if he thinks fit, before proceeding further, report the case to the Local Government"; such a course being taken only when there is something on the face of the warrant which indicates a mistake or irregularity, or the Magistrate thinks, from the representation made to him by the persons arrested, that the case is of an exceptional nature.

## Administrators-General.

The law governing Administrators-General was consolidated in Act III of this year. The Act of 1874 was amended by four Acts. The Administrator-General was formerly remunerated by commission. The responsibilities attaching to the office were heavy and it was found necessary to secure greater control by doing away with the system of remuneration by commission and fixing a salary. Government taking both the liabilities and the fees of the office. A salaried officer was appointed first in Calcutta in 1902; and in Bombay in 1905. This change in the character of the office is confirmed, with the salutary provision that fees are no longer looked upon as a source of revenue but only as a means of covering the expenses of the office. The office of the Administrator-General is thrown open not only to Barristers but also to Attorneys, Solicitors and Vakils in the Presidencies of Calcutta, Madras and Bombay. The status of the Administrator-General has also undergone a change. He is made a Corporation sole with perpetual succession and an official seal. To inspire greater confidence in the new scheme, ample provisions have been made for auditing the accounts and the persons beneficially interested in the administration of estates are entitled to obtain copies of the accounts.

## Official Trustees.

The changes introduced into the law governing Administrators-General have demanded corresponding changes in the law relating to the Official Trustees. The incumbent of both those offices being in many cases the same persons the constitution of those offices and the conditions of their tenure are approximated as closely as possible. The law relating to the Official Trustees was contained in Act

XVII of 1864; and supplemented by Acts II of 1899 and V of 1902. Like the Administrator-General, the Official Trustee was remunerated by commission. This type of office now gives place to a salaried appointment. The Official Trustee can be appointed from the wider field thrown open for the selection of the Administrator-General. He becomes a Corporation sole. The auditing of his accounts by Government auditors and the right of inspecting these accounts by beneficiaries of trusts are provided for. The Official Trustee was before subject to the control of the Government and the High Court. This dual control was found undesirable and has been done away with. He now reverts to the sole control of Government. A noteworthy departure has been made by this Act, following the Public Trusts Act 1906 (6 Edw. VII, c. 56). It enables the Official Trustee to be appointed as such by will illustrating thereby the paradox "that the only use of trustees was to commit judicious breaches of trust."

The Sir Currimbhoy Ibrahim Baronetcy Act (IV of 1913) was enacted to perpetuate the title and preserve the property attached to the title.

## Phosphorous Matches.

A Bill to prohibit the importation into India of White Phosphorous Matches was first introduced into the Council in 1911; but owing to opposition it was withdrawn, pending the collection of ascertained data. It was reintroduced in November 1912; and passed into law in the following March. The Act has been passed mostly on hygienic grounds and follows in the main the provisions of the English White Phosphorous Matches Prohibition Act, 1908 (8 Edw. VII, c. 42). The provisions of the Act follow in the wake of legislation adopted by all the legislatures of the civilised nations and are meant to prevent import of strike-anywhere matches. These matches were, according to the Indian Custom Houses figures for the year 1911-1912, imported in Rangoon, 25 per cent. in Calcutta, 57.8 per cent. at Karachi, 60 per cent. at Bombay, and 76.8 per cent. at Madras. The Act prohibits the manufacture of matches with White Phosphorous; and it also prohibits the sale of such matches in the whole of British India.

## Mussalman Wakf.

The Mussalman Wakf Validating Act (VI of 1913) is the first, and so far the only, instance of legislation introduced by a non-official member. It validates the permanent dedication by a Mahomedan of his property for the maintenance and support wholly or partially of his family, children and descendants provided the ultimate benefit is implicitly or expressly reserved for the poor or for any other purpose recognised by the Mahomedan Law as a religious, pious or charitable purpose of a permanent character. No such trust can become invalid merely because the ultimate charitable purpose is postponed until

after the extinction of the family, children or descendants of the author of the trust. The principle of the Bill has met with approval from the Mahomedan Community of India. It relieves a Mahomedan from the rule against perpetuities. The object of the Act is to remove "the disability and great hardship" created by the decision of His Majesty's Privy Council in the case of *Abul Fatah Mahomed Ishak v. Russomoy Dhar Chordhry* [(1891) L. R. 22 I. A. 76]. It was held in that case that under Mahomedan Law a perpetual family settlement expressly made as *Wakf* was not legal merely because there was an ultimate but illusory gift to the poor. In delivering the judgment of the Board, Lord Hobhouse said: "Their Lordships have endeavoured to the best of their ability to ascertain and apply the Mahomedan Law, as known and administered in India; but they cannot find that it is in accordance with the absolute, and as it seems to them extravagant, application of abstract precepts taken from the mouth of the Prophet. Those precepts may be excellent in their proper application. They may, for aught their Lordships know, have had their effect in moulding the law and practice of *wakf*, as the learned Judge says they have. But it would be doing wrong to the great lawgiver to suppose that he is thereby commending gifts for which the donor exercises no self-denial; in which he takes back with one hand what he appears to put away with the other; which are to form the centre of attraction for accumulations of income and further accessions of family property; which carefully protect so-called managers from being called to account; which seek to give to the donors and their family the enjoyment of property free from all liability to creditors; and which do not seek the benefit of others beyond the use of empty words." This decision caused great commotion in the Mahomedan Community of India. "Ancient *Wakfs*," complained Mr. Jinnah "that have been in existence and operation for years have been hunted down in all parts of India and have been declared invalid."

#### Joint Stock Companies.

The law relating to Joint-Stock Companies in India was consolidated in Act VII of 1913. Indian Legislation on the subject has always followed legislation in England. The first Legislative measure in 1857 was but a reproduction of the English Joint Stock Companies Act (19 and 20 Vic.). The second Act of 1866 was the outcome of English Act of 1862. The Companies Act of 1882 followed the trend of the English Legislation up to the year 1877. Between 1879 and 1908, the English statutory law continued to expand as new situations demanded fresh Legislation. Quite a number of judicial precedents came to light. The whole volume of law that had accrued during the interval was finally crystallised in the Companies Consolidation Act of 1908. Since the Act of 1882, the Joint Stock Companies developed in India with unprecedented success. In 1885, only 757 Companies were in existence, with an aggregate paid-up capital of 21 crores. Their number grew to 2,251 in 1910 and the capital swelled to 64 crores. As a necessary corollary, Com-

pany litigation also increased. It was thought necessary to assimilate the Indian with the English Law, as it tended to produce "a feeling of greater security in the breast of the British investor," whose capital it was hoped to attract to this country. The Indian Act, therefore, follows the English Act in the main with "almost slavish exactitude." In certain respects the Indian Act goes further than its English prototype. For instance, the Registrar of Joint-Stock Companies has been empowered (s. 137) to call on a company to furnish to him in writing such information or explanation as he may specify in his order. If such information or explanation is not furnished within the specified time, or if after the perusal of such information or explanation, the Registrar is of opinion that the document discloses an unsatisfactory state of affairs, he is to report in writing the circumstances of the case to the Local Government, who may appoint a competent inspector to investigate the affairs of the Company. Another point on which our law has gone further than the English law, is the subject of qualification and appointment of auditors (s. 144). An auditor must be a person "who holds a certificate from the Local Government, entitling him to act as an auditor of Companies." To require that he should either be a Chartered or Incorporated Accountant would have been a hardship. The Government propose at no distant date to start schools of accountancy for the training of auditors at convenient centres under the control of local Governments. The law relating to the winding-up of companies by order of the Court (part V) and the provisions governing the annual balance-sheets (ss. 131 to 135) have emerged without undergoing any change, as it was considered that they were peculiarly applicable to the state of circumstances prevailing here or that they were more perfect than the provisions of the English Statute. Among the provisions, newly incorporated into the Act, may be mentioned (1) the holding of the 'statutory meeting' by a Company, within a period of six months from the date on which it is to commence its business (s. 77). A "statutory report" has now to be forwarded to the shareholders of the Company, at least ten days before the meeting is held, signed by two of the directors, with a view to inform the shareholders of the exact financial position of the Company in the early stage of its existence. Secondly, the provisions relating to the appointment and qualification of Directors (ss. 84 to 87) have been made stringent, in view of the events that must be fresh to the public in this Presidency. Thirdly, the prospectus of a company is required to be a much fuller document, and is to include, among other things, the names of Directors and their interest in the Company, the estimated amount of preliminary expenses, the amount paid or intended to be paid to the promoter (ss. 92-100). The restrictions on proceeding to allotment (s. 101), and on commencement of business (s. 102), are meant to have a salutary effect. The requirement of the registration of information regarding certain kinds of mortgages and charges (ss. 112, 113) will succeed in effectually stamping out a species of fraud

with which we are unfortunately very familiar. Companies incorporated outside, but having a place of business in, British India have the obligation laid on them to keep for ready reference a certified copy of documents creating them, the full address of their principal office and a list of directors. They are also to have a recognised agent in India to accept service of process or any notice served on the Company (s. 277). The Act is to come into force in April 1914. It has made as detailed and ample provision for Companies as has been found necessary to cope with modern exigencies. Certain lacunæ were, however, discovered in its provisions by the Select Committee appointed to consider the Indian Companies Bill. A short Bill is at present engaging the attention of the Council (Bill No. 3 of 1913). It relates to the internal management of companies. The Bill in question seeks to provide, (1) that every company should have directors; (2) that a majority of them shall be independent of the managing agents; (3) the interested directors shall disclose their interest in contracts to the other directors; and (4) that in the case of contracts by agents of a company in which the Company is an undisclosed principal, a memorandum in writing of the terms of the contract shall be made and communicated to the Company.

#### Criminal Law Amendment.

No Act excited so much close comment and heated controversy as the Criminal Law Amendment Act (VIII of 1913). It has added one Chapter (V.A.) to the Indian Penal Code, and one section (196A) to the Criminal Procedure Code of 1898. The object of the Act has been to make 'Criminal Conspiracy' a substantive offence; in other words, to make it *per se* an offence. As the law stood before the amendment, one form of conspiracy only was dealt with by the Indian Penal Code. It was, and is, an offence to conspire to commit any of the offences punishable by s. 121 of the Code or to conspire to deprive the King of the sovereignty of British India or to awe by means of criminal force the Government of India or any Local Government. To constitute this form of conspiracy it is not necessary that any act or illegal omission should take place in pursuance thereof. Where, however, an act or illegal omission takes place in pursuance

of the conspiracy in order to the doing of that thing, the offence becomes a kind of abetment and can be brought within the ambit of s. 107. The present Act defines 'criminal conspiracy' as an agreement between two or more persons to do or cause to be done (1) an illegal act or (2) an act which is not illegal by illegal means, provided that some acts besides the agreement is done by one or more parties to such agreement. Where the offence conspired is punishable with death, transportation, or rigorous imprisonment for a term of 2 years or upwards, the punishment is the one provided for the abetment of the offence; in other cases, it is made punishable with imprisonment for a term not exceeding six months or with fine or with both. The Bill was introduced into the Council in March. It was supported by its framers as an assimilation of the Indian Law with the English Law on the subject. The law of conspiracy in England originated with the Ordinance of Conspirators which was promulgated in the reign of Edward I in 1305. During the succeeding centuries it developed from conspiracies to promote false and malicious indictments into a law which includes conspiracies for the doing of any criminal offence and also conspiracies to do injuries to third persons. This Act was ushered in, first to assimilate both systems of law, and, secondly, to remove a "serious flaw" in the Indian Penal Code. It was claimed by its supporters that events of the past few years had demonstrated its necessity. "Petty persecutions," said Sir Reginald Craddock, "may possibly lead to petty crime, from petty crime to organised crime, and from organised crime to a state of terrorism and demoralisation which is subversive of all peace and justice, and is harmful to all interests, public and private." The principle of the Act was attacked with considerable vehemence. It was said "the Law of conspiracy was a dangerous law, and was out of the run of the ordinary law." The ordinary law of the land was, it was asserted, sufficient to meet all cases; and no necessity was made out to import into this country, a law, which, to use the words of Mr. Justice Fitzgerald, required "to be closely watched, jealously guarded, and never to be pressed beyond its true limits." Amidst strong and opposite currents of opinion, the Act was placed on the Indian Statute Book.

## Big Game Hunting.

From the earliest times India has been famous as a land affording ample pastime for the mighty hunter before the Lord. Did not Baber, first of the great Mughals, pursue the rhinoceros on the banks of the Indus? And since then the Nimrods of all the ages have found in the East most happy hunting grounds. No country, not even Africa, has afforded a greater variety of desirable game. The great oxen of India, the gaur, the buffalo, and the yak found upon its northern confines, are unequalled by the bovine animals of any land. The big horn and the white goat of the Rocky Mountains are beyond all measure inferior to the fine sheep and goats that inhabit the precipitous fastnesses of the Himalayas and the Tibetan plains beyond, which though not within the limits of our Eastern Empire, are accessible to sportsmen from India. The tiger has been adjudged by experienced observers to be the greatest and most imposing of felines, to whom even the maned lion must give place, both as regards beauty, size, ferocity and offensive armature; nor is the lion unknown in India, though sadly diminished in numbers and in range of habitat. The Indian elephant is perhaps inferior in size, though superior in point of utility to his African congener; and India possesses four species of bears which find no counterpart in the Dark Continent. Africa again, although abounding in a vast variety of antelopes, can show no stag equal to the bharu singh, the sambar, and the spotted deer, whilst among all its tribe of antelopes none surpasses the black buck in grace and beauty.

Although the quantity of big game in India has decreased considerably during recent years, there is still no lack of sport for those who have the will to travel far in search of it. Under British rule there has been a great increase in population, demanding an increased area of cultivation, while the network of railways that has been spread all over the country has to some extent cut up the haunts of game. But in some respects these factors have been advantageous to the hunter. Game laws have been instituted; large areas of forest are reserved, and game sanctuaries formed in some localities. Railways have brought within reach distant hunting grounds that could formerly be visited only with difficulty. The sportsman from Europe, unacquainted with the language and country, will find great difficulty in carrying out expeditions in pursuit of big game unless he is provided with suitable introductions. But with the aid of friends among the officials it is still possible for the keen hunter to obtain good sport, although for the best of it he must remain in India during at least a portion of the hot season of the year. It is then that the tigers, which have been wandering over extensive areas during the cold weather, may be more easily brought to bag, for the jungle has thinned out, and the great beasts, impatient of thirst, have to frequent the vicinity of water which, away from the rivers, is now confined to scanty pools. For hunting the gaur or bison, perhaps the early part of the rainy season is best, when the leaves that in dry weather crackle so loudly under foot have

been softened by the fall of the rain. But they also, and buffaloes, bears and leopards may well be sought for in the hot weather, when the forest, stripped of its leaves, affords them little concealment. The stags, which cast their antlers annually, must of course be hunted at the proper season, the spotted deer in the hot weather and other species during the cold season of the year. The great horned game of the Himalayas, the ibex, markhor, and the fine sheep to be found in the mountain fastnesses and in the trans-Himalayan regions must be looked for when the snow admits of the sportsmen reaching their habitat. Kashmir may well be revisited in March, but the passes that lead to the roof of the world, where *oris ammon* and *oris poli* are to be found will probably not be open before June or July.

Hunting grounds are to be found throughout the length and breadth of India. Mysore and Burma produce the finest bison, but these splendid animals, though strictly preserved, are to be found also in the forests of the Satpura Hills, that paradise of big game. The sportsman with a year at his disposal, provided he has suitable introductions and is prepared to work hard, should be able to secure specimens of most of the game animals of India. He might well begin in January in the Central Provinces, where he would find black buck, gazelle, Nilgai, and a variety of small game in the open country, and where there should be no difficulty in securing some panthers and sloth bears, sambar, spotted deer and swamp deer. In the hills also he will find barking deer and four horned antelope, while tigers are not uncommon, and in remoter parts buffalo may be met with. About the middle of March the sportsman could go on to Kashmir, and find there brown and black bears, ibex, markhor and shapoo or orial, before crossing into Tibet. He might be fortunate enough to come across a stag that had not yet cast its antlers, and failing this, he could get his stag on the return journey towards the end of October, or in November. If he has more time at his disposal, Burma might well be visited, for there are found several species not to be obtained in India, such as the tiste, the browantlered deer, and the Malayan bear, and elephants and rhinoceros might perhaps be met with; but this would probably entail an extension of the tour considerably in excess of the twelve months.

It is not advisable to lay down the law as to rifles and equipment, but the sportsman may be recommended not to use small-bore rifles for dangerous game. A 450 cordite rifle should suffice for big game, and a smaller bore for antelope and gazelle, while a 12-bore gun will be found most useful for feathered game. All equipment in the way of tents and furniture is best purchased in India, and a list of the necessary articles could be obtained from any official who is acquainted with camp life.

In Southern India all hunting is generally done on foot, but the sportsman would require a couple of ponies. In the Sub-Himalayan Terai elephants are necessary, as the long grass renders hunting on foot practically impossible.

## Botanical and Zoological Surveys.

**The Botanical Survey** is under the direction of the Superintendent of the Royal Botanic Garden, Calcutta, with whom are associated the Economic Botanists belonging to the Agricultural Department. In 1912 the post of Reporter on Economic Products was abolished and replaced by that of Economic Botanist to the Botanical Survey. Much of the systematic botanical work of India is done for the department by forest officers and others. Over 2,000 specimens were obtained in 1911-12 by the officer deputed to accompany the Abor Expedition as botanist, and a material addition was made to the information available as to the vegetation of the little-known frontier region traversed.

**Mammal Survey.**—This work is carried on by the Indian Museum, the officers attached to which have during the last few years given special attention to a survey of the freshwater fauna of the Indian Empire. An important movement has recently been inaugurated by the Bombay Natural History Society which has collected subscriptions for a survey of the mammals of India. This Survey was begun in 1911 with the object of getting together properly prepared specimens of all the different kinds of Mammals in India, Burma and Ceylon so that their distribution and differences might be more carefully worked out than had been done before, also to form as complete as possible a collection of specimens for the Society's Museum in Bombay. Before the Survey started the Society had a very small collection, and even in the British Museum in London the Indian specimens were very poorly represented. Three trained collectors from England are in the service of the Society and the specimens obtained by the Survey are being worked out at the British Museum and duplicates presented to the different Museums in India. Most of the country has been worked on the West Coast from Coorg as far north as Mount Abu, also the Central Provinces and part of the Northern Shan States and Ceylon. At the present time the collectors are in Kumaon, Assam and Ceylon. Funds for the Survey were raised by subscription from the principal Native Chiefs and some prominent Bombay citizens, together with grants from the Government of India, the Government of Ceylon, the Government of Burma and the different local Governments, as well as donations from the Royal Society, the British Museum and the Zoological Society of London.

**The Board of Scientific Advice** was established in 1902 to co-ordinate official scientific inquiry, to ensure that research work is distributed to the best advantage, and to advise the Government of India in prosecuting practical research into those questions of economic or applied science on the solution of which the agricultural and industrial development of the country so largely depends. The Board includes the heads or leading representatives of the Survey, Agricultural, Civil Veterinary, and other Scientific Departments, with the Inspector-General of Forests and the Director of the Indian Institute of Science. The programmes of investigation of the various departments are submitted to it for discussion and arrangement, and an annual report is published on the work done, as well as a general programme of research for the ensuing year. The reports and the programmes formulated are communicated for consideration to an Advisory Committee of the Royal Society, which from time to time furnishes valuable suggestions and advice.

**The Indian Research Fund.**—Scientific research work is rapidly developing in India. In 1911 the sum of 5 lakhs (£33,000) out of the surplus opium revenue was set aside as an endowment for research into epidemic diseases in connection with the Central Research Institute, at Kasauli. It was hoped that this sum might be largely augmented by private subscriptions. An Indian Research Fund Association was constituted, and a good deal of work has already been undertaken. Its objects are defined as "the prosecution and assistance of research, the propagation of knowledge and experimental measures generally in connection with the causation, mode of spread and prevention of communicable diseases." Fresh investigations into kala azar and cholera have been inaugurated, and an officer was deputed, at the expense of the Fund, to study yellow fever in the regions where it is endemic, with a view to taking steps to prevent its introduction into India. A further grant of 6 lakhs (£40,000) was made to the Central Research Fund from the opium surplus of 1911-12. It has been decided to devote to research and anti-malarial projects 5 lakhs (£33,000) a year from Imperial revenues commencing in 1913-14. A new periodical, The "Indian Journal of Medical Research" was instituted last July, and will be published four times annually, as the official organ of the Research Fund. The journal deals with every branch of research directly or indirectly connected with medical and sanitary science, and forms a record of what is being done in India for the advance of this work.

## NATIVE PASSENGER SHIPS.

The following Resolution by the Government of India was issued in October 1913, as a result of inquiries set on foot after the loss of the Titanic.—

"The Board of Trade made a comprehensive revision of the scale of boats and life-saving appliances to be provided on board ships in the United Kingdom and appointed committees of experts to deal with collateral questions arising in the same connection. Meanwhile,

the maritime local Governments have been consulted as to the necessity for revising the rules which govern vessels in British India, particularly those under the Native Passenger Ships Act 1887, the Pilgrim Ships Act 1895, and the Indian Emigration Act 1908, which are read in the notifications detailed above. The replies show that while a revision is undoubtedly necessary, there is a great divergence of opinion as to the extent to which it is required and the

lines on which it should proceed. The subject is one of considerable difficulty and complexity, involving a number of technical and other questions which need careful scrutiny. The Government of India have therefore decided to appoint a committee representative of official and non-official interests which will enquire generally into the sufficiency of the existing rules and report its views to the Government. The committee will consist of the following President and members:—President, Mr. C. G. Todhunter, I.C.S., Collector, Madras Presidency. Members—the Hon'ble Sir Fazulbhoi Currimbhoy Ebrahim, Bombay, Commander C. J. C. Kendall, D.S.O., R.I.M., Port Officer, Calcutta; Mr. W. H. Ogston, partner in Messrs. Killick, Nixon & Co., Bombay; Captain P. Dest Cronix, Marine Department, British India Steam Navigation Company, Calcutta."

The Committee met at Bombay on the 10th November and subsequently visited other ports. It will submit its report to the Government of India on the 1st March 1914. The report will be accompanied by drafts of the rules which it recommends for adoption.

**Difficulties of the Question**—The appointment of the committee was welcomed by the Press, though some criticisms were directed against the apparent narrowness of the scope of the inquiry. The whole subject is one of considerable difficulty and complexity. It is well-known that the standards laid down under the enactments now in force are not adequate to provide accommodation for all on board. It would be invidious to specify any one vessel to illustrate the inadequacy of the present standards, but it may roughly be said that, on the assumption that the cubic capacity which should be provided in life-boats should be at the rate of ten cubic feet per adult, the accommodation now provided will only afford room

for 20 to 50 per cent. of the number of passengers carried. The question is further complicated by reason of the fact that of a number of native passenger ships many are never out of sight of land during their voyages, and that any insistence on the principle that there should be life-boat accommodation for all on board will necessarily result in the curtailment of the carrying capacity. It is doubtful therefore whether, in the case of passenger ships which are engaged in the carriage of passengers between ports separated by inconsiderable distances, some relaxation should not be allowed in the matter of providing life-boat accommodation for all on board. The matter is thus essentially one for local investigation.

**Working of the Act.**—Under the Native Passenger Ships Act (X of 1887) the term "Native Passenger Ships" is applied to sailing-ships, which carry as passengers more than thirty natives of Asia or Africa, and to steam-ships carrying more than sixty such natives. Local Governments have discretionary power, with the sanction of the Governor-General in Council, to alter these numbers to fifteen and thirty, respectively. A long voyage is defined in the Act as a voyage in which the ship will, in ordinary circumstances, be continuously out of port for one hundred and twenty hours, or more and a short voyage as one in which the ship will not, in ordinary circumstances, be continuously out of port for one hundred and twenty hours. The space allotted to passengers, and some of her conditions, differ in a long and a short voyage.

The total number of persons who left Indian ports in native passenger ships under the Act, X of 1887, that is, who left as passengers, being neither emigrants to the Colonies or elsewhere nor pilgrims to the holy places in Arabia, was 2,526,248 in 1911-12.

## Persian Gulf Trade.

The British connection with the Persian Gulf has been a matter of steady growth since the earliest developments of England's mercantile and political interests in eastern seas, and is now so intimate that Lord Curzon made an official tour of the Gulf Ports as Viceroy of India in 1904, while the two Conservative and Liberal British Foreign Ministers of recent years have both affirmed the principle that for any other Power to attempt to establish a port there would be regarded by Great Britain as an unfriendly act. Britain has policed the Gulf, surveyed, mapped and buoyed it. Few people in England fully realize the expenditure of blood and treasure and the patient and continuous effort by which we have during the past century established the peace of the Gulf, or the extent to which its maintenance is still dependent upon the vigilance of our cruisers and the efficiency of our political officers. Still fewer realize that along a considerable portion of its shores the people of the Gulf and their rulers stand, and have long stood, in treaty relation with us scarcely less close than those in which many of the Native States and Continental Rulers of India stand to the paramount Power.

British and British-Indian trade in the Gulf amounts to several millions sterling a year. The whole of the Gulf is practically dependent upon the British Mail services for its postal communications. It was the Indian Government that laid the cable up the Gulf and across Persia. Lord Curzon in a speech to the British Indian community at Bandar Abbas said: "Should any one inquire why the Viceroy of India, while in the discharge of the duties of his office, should visit this place, the answer may be found not only in the uninterrupted historical connection which has existed between Bandar Abbas and India for hundreds of years, but in the fact that here we are at the mouth of the sea which has been one of the main and most beneficent areas of British exertion in Asia." Great Britain has refrained from territorial occupation in the Gulf region. British trade spreads its web inland from the Gulf littoral in numerous directions and is chiefly directed through the Gulf ports into southern and western Persia. Persian imports flow in from two directions, from the north, *via* Russian routes, and from the south and west *via* the Gulf ports, and practically the whole of British and Indian trade with Persia is carried by the latter routes. The statistics of British and Indian trade with Persia are, therefore, practically a record of what goes by the Gulf entrances.

Since the chronic disturbance of the southern routes began a few years ago, a good deal of British trade of small bulk has been diverted to the Russian postal routes. There is also a comparatively small, but rapidly developing, overland trade with India *via* Nushki and Quetta, in Baluchistan.

The main trade entrances to Persia from the Persian Gulf are:—

(1) Through Basra, thence by river barge up the Shatt-el-Arab to Baghdad and thence by camel and mule caravan across the Turco-Persian frontier at Khanikin, to Kermanshah, in the West Persian Highlands, and on through Ha-

madan to north and central Persia and Teheran;

(2) Through Bushire and inland *via* Shiraz to Isphahan, in Central Persia; and

(3) Through Bandar Abbas, at the entrance of the Gulf, and *via* Kermau to Seistan and Khorasan, in eastern and north-eastern Persia.

Another entrance is through Mohamerah and into the western highlands *via* the Karun Valley.

### The Course of Trade.

The last published report on the trade of Persia by the British Legation in Teheran is that for 1911-12. It shows that during that year the trade of Persia with foreign countries amounted to £19,819,863 as compared with £17,198,691 in the preceding year, an increase of £2,621,172 or 15.23 per cent. The British Empire stood second in the combined list of imports and exports, with a total of £5,521,486, or 27.85 per cent., compared with £4,541,500, of the previous year, an increase of £979,986. British imports into Persia were, as usual, second on the list with £1,414,079, or 22.27 per cent. (in the previous year £3,793,303) and exports from Persia to the British Empire amounted to £1,107,407, (previous year £748,257) or 5.58 per cent. surpassing for the first time those to Turkey, which were valued at £757,671 (previous year £800,054).

The following table shows in further detail the value of the import and export trade of Persia with Britain and certain other countries 1911-12:—

	Import.	Export.	Total.
British Empire (excluding India) ..	3,215,052	722,528	3,937,630
India ..	1,199,027	384,820	1,583,856
Russia ..	5,355,958	5,685,596	11,041,554
Germany ..	332,522	98,507	431,020

In considering the figures of British and Russian trade, it must be remembered that there have at no time been such obstacles to trade in the north—Russian's road of entry—as there have been in the rest of Persia, and the roads have remained open for caravans to move freely along them. The presence of several thousand Russian troops in the north has doubtless had a quieting effect on the population, with its attendant advantages to trade, and it is to be anticipated that the Russian trade figures will continue to show marked increases.

Hamadan, an ancient meeting point of several trade roads in the rich highlands of Western Persia, is the largest centre of British trade in Persia, taking about three-quarters of a million pounds' worth of British goods annually and growing in importance. Kermanshah, westward of Hamadan, is the forwarding centre, before Hamadan is reached, of the important stream of British trade pouring in through the Persian Gulf port of Basra and up the Shatt-el-Arab to Baghdad. The customs returns of Kermanshah show in normal years a total of about £1,000,000



worth of goods imported from the United Kingdom. Of this (principally Manchester goods), it is estimated that three-quarters are for Hamadan. Large Arab-Jewish merchants established in Manchester ship their goods direct from that city to Baghdad, whence they are forwarded to agents in Hamadan. Apart from Lancashire cotton goods and a little Sheffield cutlery there are at present no British imports of consequence. It is said that inland transport tariffs being excessive and the southern roads infested with robbers, British merchants generally find it impossible to compete with Germany and Russia. It is alleged that these two countries, being within easier reach, are able to supply the bazars of North Persia with goods at a much smaller cost and that, although the quality is very inferior, this matters little to the average Persian.

### THE BAGHDAD ROUTE.

British trade *via* Basra to Baghdad is chiefly transit trade for Persia, as indeed is the greater portion of all Baghdad trade. During the last two or three years the virtual closing of the South Persian routes has benefited the Baghdad traffic by obliging goods which formerly entered by other lines to adopt that *via* Baghdad and Kermanshah instead. Further impetus was given in the last year under report by good harvests in Mesopotamia; and the commencement of large irrigation works at Hindiyah and Habbaniyah in Mesopotamia by the British firm of Sir John Jackson, Limited, in 1911, on behalf of the Turkish Government, has brought money into the country and increased the purchasing power of a part of the population. On the other hand the political chaos in Southern Persia has had a prejudicial effect upon the import trade. The coarser Indian cottons are said to find a sale chiefly in the less civilized tracts of Persia and were consequently the first to suffer by the extension of unrest. The British woollen trade is well established along the Baghdad route, but is subject to violent fluctuations through various causes. A general demand at Baghdad for finer clothing is revolutionising local industries and larger quantities of worsted yarns are consequently imported for weaving the better qualities of cloth from which abbas, or native cloaks, are made.

Other Baghdad imports from British sources are ludlgo, leather, tea, matches, coffee and

A Turkish Chamber of Commerce was formed at Hamadan in 1911-12. Its members consist of most of the Arab agents of British and Arab firms in Manchester. It is presided over by the Turkish Consul.

Great developments in British trade with this part of Persia will ensue when the railway from Mohammerah, at the head of the Persian Gulf, into this region is opened. Engineers are already on the spot engaged in the preliminary work of construction. British goods by direct steamer take at present as a minimum the following time in transit:—London to Basra, six weeks; Basra to Baghdad, five days (but delay in transhipment is frequent). From Baghdad to Kermanshah both mule and camel transport are available during the summer months, but the latter is suspended in winter between November and March.

medicines, metals and machinery. India enjoys a virtual monopoly as regards tea. The matches are Swedish, coming through British ports. The coffee is chiefly of Brazilian origin. England and India are making steady progress in the trade in drugs and medicines, in which India is likely to oust France from first place. Practically the whole of the machinery is from the United Kingdom and the bulk of it consists of oil engines and centrifugal pumps and similar equipment for agricultural purposes, a department which the British firms at Baghdad have well in hand.

The exports through Baghdad for the United Kingdom are mohair, galls, wheat and barley, opium, Persian carpets, dates, hides and skins.

The total imports into Baghdad from the United Kingdom in the last three years for which returns are available were valued as follows:—

1909	..	..	£1,201,318
1910	..	..	£1,718,818
1911	..	..	£1,199,597

Imports from India are classed with those of China and Japan and their values of imports from these three sources in the same years were:—

1909	..	..	£461,668
1910	..	..	£664,147
1911	..	..	£747,525

The following are details of principal imports from the United Kingdom and India during 1909, 1910 and 1911:—

		1909.		1910.		1911.	
			£		£		£
Cotton Goods—							
U. K.	Bales and Cases.	24,111	1,012,658	18,725	836,202	19,353	967,650
India	.. .. Bales.	5,425	119,350	9,207	276,210	7,920	251,433
Cotton Twist—							
India	.. .. Bales.	6,235	88,849	5,035	81,717	5,070	86,000
Sugar—							
India	Bags and Cases.	3,122	7,025	..	..	..	..
Tea—							
India	.. .. Cases.	16,116	66,719	13,908	63,673	18,021	81,052
U. K.	.. .. Cases.	5	25	19	162	37	370
Woolens—							
U. K.	.. .. Cases.	606	42,420	4,051	280,058	358	24,156
India	.. .. Cases.	235	651	70	446	48	93

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The following are details of principal imports from the United Kingdom and India during 1909, 1910 and 1911:—

			1909.		1910.		1911.	
				£		£		£
Coffee—								
U. K.	..	.. Bags.	8,400	31,200	3,770	16,210	5,627	32,900
India	..	.. Bags.	273	1,023	141	633	1,571	9,777
Indigo—								
India	..	.. Bags.	617	33,318	1,087	43,418	670	27,443
Drugs, etc.—								
India	..	.. Bags.	1,767	7,068	2,807	13,814	3,003	14,934
U. K.	..	.. Bags.	116	2,320	165	3,270	363	7,021
Copper—								
U. K.	..	.. Bundles.	2,326	22,795	7,559	67,629	4,121	41,568
India	..	.. Bundles.	1,783	2,950	1,038	8,617	782	6,647
Iron—								
U. K.	..	.. Bundles.	..	..	..	..	3,889	2,201
India	..	.. Bundles.	..	..	..	..	36	18
Tin—								
U. K.	..	.. Cases.	..	..	57	315	..	..
India	..	.. Cases.	..	..	1,469	15,302	..	..
Paraffin Oil—								
U. K.	..	.. Cases.	..	..	..	..	7,700	2,896
Silk—								
India	..	.. Bundles.	1,274	20,291	909	18,760	1,311	27,454
U. K.	..	.. Cases.	..	..	485	4,581	293	1,179
Tobacco—								
India	..	.. Cases.	..	..	8	1	7	6
U. K. Cases	..	..	..	..	12	9	1	2
Paper—								
U. K.	..	.. Cases.	..	..	..	..	5	20
India	..	.. Bales.	..	..	..	..	1,777	7,108
Pepper—								
India	..	.. Bags.	..	..	3,450	12,037	3,548	16,880
Matches—								
U. K.	..	.. Cases.	1,336	5,144	921	3,874	1,452	5,140
Leather—								
India	..	.. Cases.	390	1,739	499	5,257	..	..
U. K.	..	.. Cases.	32	1,344	453	16,271	..	..
Candles—								
India	..	.. Cases.	2,393	5,504	1,342	2,668	20	20
U. K.	..	.. Cases.	1,519	1,747	325	345	27	27
Gunnies—								
India	..	.. Bales.	993	1,074	1,327	14,587	1,898	17,636
Glassware—								
India	..	.. Cases.	..	..	6	8	327	1,962
U. K.	..	.. Cases.	..	..	87	483	109	569
Cassia—								
India	..	.. Cases.	..	..	4,199	12,597	..	..
Colours—								
U. K.	..	.. Cases.	..	..	29	145	..	..
India	..	.. Cases.	..	..	..	..	436	2,180
Hardware—								
U. K.	..	.. Cases.	..	..	662	9,972	..	..
India	..	.. Packages.	..	..	129	591	..	..
Machinery—								
U. K.	..	.. Packages.	..	..	977	19,351	1,253	25,060
Planks and Wood—								
India	..	.. Pieces and Bundles.	..	..	83,532	11,187	114,640	14,330
Bedstead—								
U. K.	..	.. Cases.	..	..	..	..	1,218	13,398
Charcoal—								
India	..	.. Baskets.	..	..	..	..	40,591	10,776
Ebony Wood—								
India	..	.. Pieces.	..	..	..	..	1,512	13,608
Cotton Thread—								
U. K.	..	.. Bundles.	..	..	..	..	45	1,687
India	..	.. Bundles.	..	..	..	..	305	9,159
Enamelware—								
U. K.	..	.. Cases.	..	..	..	..	84	386
India	..	.. Cases.	..	..	..	..	2,156	8,634

The total exports to the United Kingdom and India during 1909-11 were as follows:—

	1909.	1910.	1911.
U. K. .. ..	£ 255,744	£ 330,361	£ 284,347
India .. ..	35,400	25,938	32,906

Basra is a port of export for horses for India. The Turkish Government placed an embargo on the export of horses when the Balkan war broke out and this and poor prices in Bombay have recently considerably reduced the horse trade.

The Baghdad Railway Company have formed a depot for storing material four miles above Basra on the Shatt-el-Arab. The latest available returns regarding traffic on this river are those for 1912. They show that in addition to the four launches and tugs employed specially for forwarding Baghdad railway material, Messrs. Lynch Bros. had three steamers plying on the Tigris and one in reserve, while the Ottoman Nahrie Company had five steamers. The Arab Steamship Company continued to run three steamers and were building a fourth. The total number of steamers engaged in the river service in 1912 was therefore eleven and one held in reserve, exclusive of the four vessels belonging to the Baghdad railway transport service. The railway company have since increased their carrying arrangements.

The following is a return of shipping of all nationalities which entered and cleared in the foreign trade of the port of Basrah during 1912:—

(a) STEAM Vessels.

	Vessels.	Tonnage.
British .. ..	217	*258,340
German .. ..	12	30,948
Russian .. ..	5	9,893
Ottoman .. ..	4	2,395
Persian .. ..	1	150
French .. ..	1	2,490
Total .. ..	240	304,186

\* Includes steamers entering from and clearing to Ottoman ports.

(b) SAILING Vessels.

	Vessels.	Tonnage.
British .. ..	91	9,559
Ottoman .. ..	166	6,000
Persian .. ..	60	2,952
French .. ..	3	252
Zanzibar .. ..	12	1,508
Total .. ..	338	20,271

The following is a return of British Shipping which entered and cleared in the Foreign Trade of the Port of Basra, during 1912.

(a) STEAM Vessels:

ENTERED.

From	With Cargo.		In Ballast.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
United Kingdom .. ..	70	56,000	28	14,000	98	70,000
India .. ..	100	41,580	..	..	100	41,580
Germany .. ..	3	6,000	1	950	4	6,950
Belgium .. ..	1	3,000	..	..	1	3,000
Persia .. ..	..	..	1	200	1	200
United States .. ..	2	5,212	..	..	2	5,212
Total .. ..	176	111,792	30	15,150	206	126,942

CLEARED.

To	With Cargo.		In Ballast.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
United Kingdom .. ..	53	137,140	..	..	53	137,140
India .. ..	130	68,000	11	6,500	141	74,500
Germany .. ..	4	14,250	..	..	4	14,250
Belgium .. ..	1	4,000	..	..	1	4,000
Austria .. ..	1	4,000	..	..	1	4,000
United States .. ..	3	10,200	..	..	3	10,200
Total .. ..	192	237,590	11	6,500	203	244,090

(b) Sailing Vessels.  
ENTERED.

From	With Cargo.		In Ballast.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
India .. ..	44	4,689	41	4,100	85	8,789
Persian Gulf .. ..	..	..	4	574	4	574
Arabia .. ..	..	..	2	196	2	196
Total .. ..	44	4,689	47	4,870	91	9,559
To		CLEARED (with Cargo).		Vessels.		Tonnage.
India .. ..	..	..	..	86	8,904	
Aden .. ..	..	..	..	3	315	
Arabia .. ..	..	..	..	2	340	
Total .. ..		..		91	9,559	

BUSHIRE.

Bushire is the most important direct trade entrance from the Gulf into Persia. The area in the southern part of the country, for which the port of Bushire serves as a distributing centre, falls roughly into two divisions: (a) The towns along the main caravan route up to and including Isfahan (such as Shiraz, the principal centre, Kazerun, Abadeh) and the province of Fars generally; (b) the coast littoral, south of the first mountain range on the way to Shiraz, for a distance of more than 150 miles in length and embracing, near the borders of Arabistan, the large town of Belibehan and the district.

To merchants generally, the markets of the first-named group are of more substantial importance, but in recent years, when the prevailing insecurity and various other causes have adversely affected business in Shiraz and the markets of upland Fars, the consuming and productive power of the coast littoral has become of far greater importance, and those importing agencies which have devoted themselves to this section of the country have done increasingly good business. The reason for this is to be sought in the very fair security, good order and increasing buying powers which have for some years characterised most of the coast districts south of the mountains. The population of these parts may be estimated at little less than 100,000 persons and possibly more. Administratively, each district is governed by a ruling family of Khans or Chiefs, who of recent years have become semi-independent and are a law unto themselves, making war and alliances one with another, and taxing their subjects and passing caravans as they like. The livelihood of the villagers of these districts depends, as a rule, on their crops of wheat and barley, on the date crop, on vegetable produce, cultivated by well irrigation, and supplying not only their own wants but taken into market at Bushire and the smaller ports for local consumption and export in the Gulf; on crops of tobacco, cotton, millet, &c. These districts situated near the mountains or in the valleys of the ranges beyond the littoral are also productive of large quantities of gum insoluble, of wild berries and oil seeds and wild almond kernels, and draw supplies of clarified butter (*rogban*) from the pastoral villages at the higher altitudes. The needs of these tribesmen,

drawn from the bazaar at Bushire, are limited almost entirely to food and clothing supplies. The bulk of a tribesman's belongings consists of bedding, metal trays for food, a little crockery, e.g., basins, earthenware and enamelware, dishes, tea glasses with earthenware saucers, also teapots (generally of Russian manufacture), earthenware plates, metal copper cauldrons for cooking, wooden or sometimes tin chests as receptacles.

On the other hand, for dress the Southern Persian tribesman is almost entirely dependent on imported cotton goods. The material prosperity of the inhabitants of the littoral is by no means low. Conditions are primitive, and there is no fresh ground to be exploited by manufacturers and exporters in the United Kingdom in the immediate present. The interior is not yet a country for the commercial traveller.

The British Consular report for 1912 says that railway transport might change matters, but the only openings which now suggest themselves as possible are the introduction or adaptation of machinery in the neighbourhood of the ports for the treatment of date fibre and manufacture of matting, rope and many similar products; agricultural machinery, with which experiments have never been made in this hinterland, and which is an economic need, though sales could only scientifically be developed by a firm with an agency in the country, able to find out requirements on the spot and educate the people up to a demand for it; the manufacture in Europe of such implements as iron bills or spade-heads of a particular shape; machine-made imitations at cheaper prices of woven *abbas* (woollen or camel's hair cloaks); imitations of the national felt head-dress of the Southern Persian called *kulcha*, now sold in bazaars for 4 to 8 kraus (1s. 6d. to 3s.) each; and imitations of their national footwear (*malikis*), often home-made; but commonly sold for 6 to 10 kraus (2s. 3d. to 3s. 9d.) per pair in bazaars of towns. The general standard of living and luxury in the towns is on a considerably higher scale.

Effects of Disorder.

From 1908 onwards deterioration in the state of security throughout Southern Persia has been marked, anarchy has each year been worse than in the similar season of the previous year, and the effect on trade is clearly defined

in many ways. Recent reports speak to excellent progress by the Gendarmerie organised by Swedish Officers, in pacifying this region and the Gendarmerie succeeded in re-opening the Bushire-Shiraz road last November meanwhile, the actual results of the insecurity on the roads and disorder throughout the province are not easily apparent from the trade statistics and require explanation. They may be summed up under the headings of (a) enormously increased prices of transport into the interior; (b) losses by Persian merchants unable to obtain in the local centres a buying price sufficient to cover both original invoice price and cost of transport; (c) limitation of area of market for goods from the Persian Gulf when thrown into competition with goods transported more cheaply from the north; (d) impossibility of safe communication between provincial centres like Shiraz and the surrounding country districts, owing to continuous fighting, raiding and marauding, and, consequently, reduced sales to the country districts; (e) congestion of goods in the provincial centres as the result of the above causes, combined with excessive quantities of goods ordered out from Europe; (f) in consequence, largely increased indebtedness of Persian firms working on European credit or forced sales of goods at prices involving a heavy loss in order to meet bills and obligations.

The 1912 Consular report states:—"Financially the full effect of this year of large import and dislocation of sales may not be apparent for some little time to come, but there is every reason to apprehend a crash in the near future, when even Persian merchants with large capital of their own—and they are not many—will be badly hit."

Perusal of the reports of disastrous influences affecting foreign trade with Southern Persia during the year 1911-12 will prevent any misapprehensions to the effect that there has been a recovery in trade during that period and remove any hasty inferences from the fact that imports were assessed by the customs as £273,651 above those of the previous year 1910-11. The actual figures for 1911-12 were imports, £932,531; exports, £669,020. Compared with previous years:—

	Imports.	Exports.
	£	£
1902 .. ..	1,179,906	348,202
1903 .. ..	879,803	360,660
1904 .. ..	889,825	454,981
1905 .. ..	761,032	469,980
1906-07 .. ..	863,842	508,421
1907-08 .. ..	1,052,043	497,990
1908-09 .. ..	793,465	432,586
1909-10 .. ..	717,091	400,892
1910-11 .. ..	675,614	348,950
1911-12 .. ..	932,531	669,020

The increase of £256,917 in imports would, states the Consular Report, no doubt be in itself remarkable if it were not for the fact that it represents very largely goods "dumped" into the country and not healthy consumption in the interior. Among articles showing increases were cotton piece-goods, \$159,350, Expressed

in terms of weight the imports were:—

1908-09 .. ..	16,981 Tons.
1909-10 .. ..	16,404 ..
1910-11 .. ..	13,879 ..
1911-12 .. ..	16,975 ..

Almost the entire increase of 1911-12 on the previous year is represented by piece-goods (727 tons) and loaf sugar (1,147 tons).

Of the £932,531, value of imports, the proportion assigned to the United Kingdom rose from 42 to 44·5 per cent., that of India falling from 36 to 31 per cent., the total proportion of British goods, 76 per cent., being thus over 2 per cent. lower than in 1910-11. Imports from Belgium, as a result of heavy consignments of sugar, rose nearly 3 per cent. The proportion enjoyed by France and Germany diminished by 3 and 2 per cent. respectively. The small imports from the Dutch East Indies again showed an advance from £20,150, to £20,095.

In exports the proportion of the values assigned to the United Kingdom rose from 32·9 to 41 per cent., while that of India fell considerably—from 28 to 13 per cent.—though the actual imports from India were £44,858, in excess of those of 1910-11 and the exports to India only £8,169, less than in that year. China's share increased from 8 to 17 per cent. and that of Germany from 3 to 10 per cent.

The aggregate proportion by value of the total trade of Bushire, which has been assigned to the United Kingdom and India, has been of recent years:—

	Per Cent.
1905 .. ..	59
1906-07 .. ..	62
1907-08 .. ..	77
1908-09 .. ..	70
1909-10 .. ..	68
1910-11 .. ..	70
1911-12 .. ..	65

### Shipping.

Two hundred steamships with a total tonnage of 319,234 tons entered the port of Bushire during the year 1911-12, as against 180 vessels with a total tonnage of 261,035 tons in 1910-11; 190 steamships cleared the port with a total tonnage of 313,322 tons as compared with 179 vessels and 254,706 tons in 1910-11.

British shipping increased from 165 vessels and 228,978 tons to 182 vessels and 274,444 tons. The number of British steamships bringing cargo direct from the United Kingdom was 34 as against 36 in 1910-11, and the number taking cargo direct to the United Kingdom 29 as against 14 in 1910-11.

The following British lines are interested in the shipping trade of the Gulf and despatched either their own or chartered ships:—

	Vessels in 1911-12.
Anglo-Algerian Steamship Company, Limited, (1896) .. ..	25
Bucknall Steamship Lines, Limited ..	10
West Hartlepool Steam Navigation Company .. ..	9
Messrs. Andrew Weir & Co. and other chartered steamers .. ..	17
British India Steam Navigation Company, Limited .. ..	101
Arab Steamship Lines, Limited .. ..	10
Bombay & Persia Steam Navigation Company, Limited .. ..	10

In addition, 13 German vessels belonging to or for the Hamburg-America Line called at Bushire on the outward voyage, 12 on the homeward voyage, and 5 Russian steamers of the Russian Company of Shipping and Commerce on the outward voyage and 6 on the homeward voyage. The number of independent chartered steamers also shows a tendency to increase, and with the extension of trade on the Tigris and the developments projected in that district it is not unlikely that other companies will make their appearance. A Dutch service of steamers from Java to the Gulf is in contemplation. The Arab Steamship Line, with its head office in Bombay, has made rapid progress and now has five ships in the trade, which are carrying considerable quantities of cargo.

Not for many years past had such heavy export shipping from Bushire to the United

Kingdom taken place as in 1911-12, more than 13,500 British tons of cargo were shipped.

"It is all the more to be regretted," states the Consul's Report, "that the British shipping companies concerned did not pay the same careful attention to the needs of shippers as is shown by the foreign companies; great dissatisfaction was expressed by all owing to the manner in which space was refused to Bushire export cargo and the claims of Bushire put aside to suit Basra. With so sensitive a *clientele* as the Persian exporter, it is a pity that shipping companies do not shew themselves more accommodating. The question of lighterage at ports in the Persian Gulf, and Bushire in particular, is another instance of lack of initiative and lack of combination on the part of the companies."

### BAHREIN ISLANDS.

An important trading centre in the Persian Gulf is the Bahrain Islands, lying in an indentation of the Arabian coast on the western shore of the Gulf. The Bahrain Group consists for practical purposes of two islands, Awal (the main island) and Muharrak. The former is 30 miles (maximum measurement) and has an area of 208 square miles. The latter, lying a couple of miles from the north-east corner of the main island, is of a very irregular figure and has an area of only some 5½ square miles. Particulars given in British official reports show that the surface of the islands is for the greater part uncultivated, owing chiefly to the want of water-supply, partly to the character of the people and the greater attractions of the pearl industry, which is centred in the islands. The population of the islands is reckoned at about 100,000. With the exception of the more well-to-do towns-people, the inhabitants are poor and their wants are confined to the simpler forms of food and clothing. An essential feature of Bahrain is the large floating population. As a port and trade centre, it is a place of resort for people from the adjacent countries—Persia, Turkish Arabia, Katar and Trucial Oman, and to a less degree Central Arabia. There is a large interchange of produce, but many persons also come from the neighbouring Turkish and Arab provinces to make cash purchases. Apart from these commercial visitors, however, there is also the large community engaged in the pearl fishery, who in 1906 were estimated as numbering some 17,500 souls. The movements of this considerable body of people produce seasonal fluctuations in the activity of the local market. The most active time is in April and May, when not only the fleet but the families remaining ashore are provisioned for the following months. Again at Kuffal, on the return of the fleet and the payment for the pearls, there is naturally an increase in business which is more or less maintained during the winter. The fact that the season of the import of rice also falls within September and March, further accentuates this seasonal stress.

Bahrain caters for a much larger public than its own resident or semi-resident population. It is the trade centre for the surrounding districts on the mainland, acting both as an actual

mart visited by its out-clients and as a transshipping and forwarding port. Re-export is effected by native craft. How large a population Bahrain serves directly or indirectly in this way it is impossible to estimate.

The exports for 1911-12 to Katar, Turkish Arabia and Trucial Oman, of which only a very small proportion were Bahrain produce, amounted to nearly Rs. 24,00,000 (£160,000). This included no pearls and practically no specie, and may, therefore, be compared with the total import of general merchandise during the year of approximately Rs. 1,12,30,000 (£748,000). The principal items were rice and coffee, also, to Turkish Arabia, piece-goods, tobacco and kerosine, and to Katar and Trucial Oman, ghee. Persia is also a large importer from Bahrain of goods of foreign origin. She took in 1911-12 general merchandise valued at over Rs. 11,00,00 (£73,000). The principal items were piece-goods, tea, rice and sugar. The chief inducement to Persian merchants to import via Bahrain is the facility for smuggling the goods by native boat and evading the Persian customs. Taking the above figures into account, we may be safe in assuming that not less than one-third of the imports into Bahrain are not consumed locally but are re-forwarded to adjacent countries. The re-export business cannot be regarded as entirely secure. What tends to affect it at the moment is the insecurity of the Hasa trade routes giving access to the Nejd market, and the inefficiency of the arrangements for the expeditious handling of cargo at Bahrain.

The Hindus and the Persians of Bahrain include a number of prosperous merchants who control the bulk of the general import trade. The Hindus, moreover, represent a considerable amount of capital in India, to which they add their Bahrain gains. In the shipping business (exclusive of the native coasting trade) European influence is absolute. In all cases, criminal or civil, in which a foreign subject is concerned, the British Political Agent exercises the right of supervision. All complaints by or against foreign subjects are entered at the Agency. When one of the parties is a Bahrain subject, the case is referred under supervision to one or other of the local courts. Taken all round, although security

In commercial transactions is far from complete, things might be much worse than they are. The general standard of commercial honesty among the better class of merchants is good.

The Customs Department is managed for the ruler by a Director appointed by him. The present incumbent is a Hindu, a member of one of the principal Sind firms represented in Bahrain. The working of the customs has under this arrangement been quite satisfactory. The Arabic, English, Persian, Hindustani, and Gujarati languages are all in use in the Customs office.

The import duty is 5 per cent. *ad valorem*. In the case of certain merchandise, *e.g.*, slaughter animals, it is paid in kind; and it is sometimes accepted in this form when there is a question as to the value of goods. The importation of arms and ammunition, except with the consent of the British Government, is forbidden by the treaty engagements of the Principality. That of intoxicating liquors and drugs is prohibited by local regulation, permission being granted only to Europeans to import for their personal use. The charge on goods imported for re-export without opening is in general 2½ per cent.

The arrangements for the landing of cargo cannot be described as satisfactory. The natural difficulties are great. Steamers cannot approach nearer than two or three miles from the shore, and those of over 20 feet draught have to lie four or five miles out. Cargo is landed entirely by sailing boats, and in Bahrain it is usually either blowing half a gale or is dead calm.

Producing little but pearls, Bahrain is forced to import almost all her requirements in the

way of necessities of life from abroad. The principal articles of import are pearls from the neighbouring fisheries, specie from India, rice, piece-goods, ghee, coffee, dates, slaughter animals, sugar, tea, fuel and tobacco. The principal articles of export are pearls, specie to neighbouring countries, rice, piece-goods, dates, coffee, tea, oyster shells (uncertain) and sugar.

Communications with India and the Gulf ports are maintained by the regular services of two lines of steamers. With the mainland of Arabia communication is by native craft, the time taken being entirely dependent on the weather. There is much traffic of native craft also between Bahrain and the Persian Coast. There is an Indian Post Office in Bahrain, and the rates to foreign countries are the same as those between India and those countries. Rates to India are the ordinary rates of internal postage in India. There are no places of public entertainment suitable for Europeans, and houses or quarters are difficult to obtain, and expensive.

The language of the country is Arabic. In Manama, however, there are considerable Persian and Hindustani-speaking communities. The Arab, as a rule, knows no language but his own; foreigners usually understand Arabic. Few of the native merchants are in a position to conduct correspondence in English. They deal in European goods through their agents in Bombay. The climate of Bahrain is extremely damp at all seasons, and is unhealthy. The Indian rupee (Rs. 15—£1) and its silver and copper fractions are now firmly established as the general medium of exchange in Bahrain.

The trade statistics of Bahrain present three very distinct types of business, *viz.*, the movement of pearls, of specie and of general merchandise. In Bahrain the pearl trade dominates the whole commercial situation. The import and export of specie is in direct connection with it, and the business in general merchandise is subject to large variation according to the profitability of the pearl fishery and the amount of money brought into the market by it, and available for general mercantile purposes. The following table gives the total trade (including Specie and Pearls) during the year 1911-12:—

Branch of Trade.	Imports.		Exports.		Total Trade.	
	Rupees.	Percentage of total imports.	Rupees.	Percentage of total exports.	Rupees.	Percentage of total trade.
General merchandise ..	1,12,28,865	36	38,21,265	11	1,50,50,130	23
Specie .. .. .	62,65,964	20	5,16,802	2	67,82,766	10
Pearls .. .. .	1,34,83,500	44	2,99,20,000	87	4,34,03,500	67
Total .. .. .	3,09,78,329	..	3,42,58,067	..	6,52,36,396	..
	£		£		£	
	2,065,222	..	2,283,871	..	4,349,093	..

Imports amount to 47 per cent. of the total trade; exports amount to 53 per cent. of the total trade.

#### Pearls and Imports.

The British Consul's report for 1911-12 says:—"It is stated on the authority of a European expert that a good or bad pearl year

is almost entirely a question of price, and that the actual take of pearls probably does not vary by more than 10 per cent. Prices in recent years have been going higher and higher, and in 1911-12 they touched high-water mark.

"It is stated that prices rose locally by 30 to 40 per cent., and often exceeded the prices

ruling at the same time in Europe. It is also asserted that pearls now sell here for several times, even up to ten times what they did a few years ago.

"A factor in the spoiling of the market from the purchaser's point of view is said to be the keen competition of European firms purchasing in Bombay, which has lead them into giving exorbitant advances to Arab brokers there, exceeding the value of the pearls which they are able eventually to produce.

"The following is an analysis of the pearl exports according to common belief:—Finally sold in Bahrain and exported by the purchasers, Rs. 1,50,00,000; of which rather less than half were exported by European merchants, and the remainder by Arab and Hindu merchants in the ratio of 3:1. The share of European merchants according to their accounts was only Rs. 40,00,000. This leaves the balance of export, rather less than Rs. 1,50,00,000, as representing the value of pearls sent by local Arab merchants to Bombay for resale there."

A French firm, a London firm and a Bombay firm were represented in Bahrain in the year 1911-12. The operations of the latter firms, which were no doubt experimental, are understood not to have been large. The very high prices ruling were also no doubt discouraging to prudent buyers.

The highest-valued articles of trade in 1911-12 excluding pearls and species, were:—

IMPORTS.		Rs.
Rice	..	22,30,559
Cotton piece-goods	..	20,40,015
Coffee	..	9,49,020
Ghee	..	6,97,242
Sugar of all kinds	..	5,19,975
Tea	..	5,10,186
Dates	..	3,96,066
Fuel and charcoal	..	3,63,076
Fish oil	..	3,09,183
Metal and metalware	..	2,11,681
Tobacco	..	1,87,850
Cotton yarn and twist	..	1,72,165
EXPORTS.		Rs.
Rice	..	10,92,534
Piece-goods	..	5,20,760
Coffee	..	3,55,205
Tea	..	2,65,743
Sugar of all kinds	..	2,07,030
Dates	..	1,98,075
Ghee	..	1,87,420
Tobacco	..	1,24,600
Kerosene	..	1,04,800
Metal and metalware	..	75,421

### BUNDER ABBAS.

The district of Bunder Abbas consists of a narrow strip of sandy and inhospitable looking country lying between high ranges of mountains on the north and the shores of the Persian Gulf on the south. The town itself lies near the western end of the district, and is the seat of a Persian Deputy-Governor, who is subordinate to the Governor of the Gulf Ports. It consists of a squalid collection of houses, extending for about 14 miles along the shore; its inhabitants are poor and unprogressive. The population is approximately estimated at 20,000, but a large exodus takes place in summer, which

About 54 per cent. of the total imports, came from the contiguous countries of Turkish Arabia, Koweit, Katar, Trucial Oman, Persia and Muscat. These imports consists in the main of raw articles or of articles of local production, which can only be provided by these countries, or, in the nature of the case, must necessarily be supplied by them. These are, therefore, of small importance to the European or outside merchant. Of the balance, Rs. 1,25,72,848, or 41 per cent., is supplied by India. Excluding pearls and specie, the share of the neighbouring countries above mentioned in the trade in general merchandise is only 26 per cent; that of India 59 per cent. There thus remains to be divided among the other foreign countries 5 per cent. of the total imports, or 15 per cent. of the general merchandise imports. Imports from the United Kingdom, Austria-Hungary, Germany and Belgium show a material increase over those of 1910-11. The only European countries to which exports are shown are the United Kingdom and Germany. This is, however, in a sense misleading, as the bulk of the pearls find their way to Europe, and a considerable proportion from Europe to America. As the figures stand, however, India absorbs 89 per cent. of the total exports.

During the greater part of 1911-12, there were agencies of four shipping companies in Bahrain:—

(1) Messrs. Gray, Paul & Co., agents of the British India Steam Navigation Company.

(2) Messrs. Robert Wouckhaus & Co., agents of the Hamburg-Amerika Linie.

(3) The agency of the Bombay-Persia Steam Navigation Company.

(4) The agency of the Arab Steamers, Limited.

There is a regular fortnightly mail service of steamers of the British India Steam Navigation Company, Limited, between Bahrain and Bombay in each direction. Extra cargo boats of the same company also occasionally call at irregular intervals. The Arab Steamers, Limited, also provide a similar fortnightly service, but their boats are not always very punctual to their timings. The Steamers of the Hamburg-Amerika and the Bombay-Persia Steam Navigation Company only call occasionally and at irregular intervals. Pearl merchants sometimes endeavour to get recent news of the Bombay and European markets by having telegrams addressed to them to Bunder Abbas or Bushire and brought on thence to Bahrain by steamer or native boat.

considerably reduces this number. The port owes its present existence to the fact that it is a convenient, or perhaps the least inconvenient, entrepot for goods destined for the south-eastern portion of the Shah's dominions. It possesses from a shipping point of view but one advantage and many drawbacks. It is situated at the top of a re-entencing bay, extending from Lingah on the west to Minab on the east, and across this bay stretch the three islands of Kishm, Larak and Hormuz, which form a natural breakwater; consequently the port is very protected, and it is very rare that the



sea is too rough to interfere in any way with loading or unloading cargo. Against this solitary advantage is the serious drawback of a beach that shelves very gradually; as a result the 4-fathom anchorage is 2 miles out, and the short masonry pier in front of the custom-house, on to which all goods have to be discharged, is high and dry except at high tide. Lighters can only be brought alongside during about three hours at the top of the tide, and considerable delay is thus caused.

From the days of ancient travellers, the fertility and verdure of Minab, a sub-district eastward of Bunder Abbas, have received encomiums, and the date groves and fruit trees of Minab bring a refreshing sense of peace and contentment to the eye and mind. The chief exports are dates, senna, wool and ghee (clarified butter), almost all the dates exported from Bunder Abbas coming from Minab. Wool and ghee are brought into Minab from Rubdkar and Persian Baluchistan; the quantity varies considerably with the amount of grazing available, which in turn depends on the rainfall.

Exports of produce grown in the Bunder Abbas district are extremely small; similarly it is estimated that probably not more than about 5 per cent. of the total imports are consumed locally. Bunder Abbas is the port of the Kerman districts, and to a large extent of Laristan also. Now-a-days, owing to the still greater insecurity of the northern trade routes, the large bulk of the Kerman exports are sent down to the Gulf.

The last annual consular report shows that the previous year was an unfortunate one commercially, the trade routes having continued in what may now be described as their normal condition of insecurity. This rendered the transport of goods uncertain, precarious and often perilous. The long-continued anarchic condition of the country told on merchants in the interior. Some failed, others were unable to meet their obligations except after considerable delay, and trade was generally depressed. Imports, which since 1908-09 had shown a slight increase, declined slightly. Exports showed an increase of 64 per cent. in 1911-12 as compared with the year before, but this figure is in one way misleading and does not indicate an increase of purchasing power in Kerman of anything like this extent.

The increase in exports since the preceding year was in round figures, £119,000, out of which £55,000, were due to increased exports of carpets. Figures obtained from Kerman, however, showed that the exports of carpets from that province was less during 1911-12 than during 1910-11, and that the increase in the figures at Bunder Abbas was due to the fact that it was found safer to send carpets down to the coast than through Isfahan and Azerbaijan, by which route many were sent formerly. The Kerman figures, moreover, are not altogether trustworthy of exports. The balance of the increased value in exports, some £64,000, was due to increased exports of natural products, wool, ghee, pistachio nuts, &c., and may also be attributed in part to the excellent winter rains of 1910-11, and in part to the fact that certain European firms established in Kerman have recently taken up the export of almonds and

pistachio nuts. The prospects of the venture were not reported to be very encouraging.

From such figures as were obtainable in Kerman, it appears that the total exports from that province actually declined during the year, and the present state of the country does not promise an early recovery. All local merchants concur in the view that if only a reasonable measure of protection could be afforded to caravans on the Bunder Abbas-Kerman trade routes, a ready and profitable market awaits goods in the interior. At present, profits must be large indeed to cover the risk of robbery in transit. The Lar trade route is generally even more insecure than that to Kerman, but the trade with Lar is almost entirely in the hands of Persians, and no cases had occurred of the robbery of British-owned goods on this road, up to the time of the last official report.

Great disadvantage and handicap are caused to trade at Bunder Abbas by the very high telegraph rates in force between Bunder Abbas and all other places. Bunder Abbas has no telegraphic connection with the interior of Persia, except through Bushire, with which place it is connected by cable. Similarly messages for India are sent by cable via Henjam. Cable rates are accordingly in force even for places in the interior, and the charges are Rs. 14 per word to Kerman and Rs. 1-1-0 to India, whilst the charge for a message from Bushire to Kerman is only about an. 1 per word. In the present disturbed state of the country telegraphic facilities are more than ever of the highest importance to trade. It takes a month to get a reply from Kerman and 16 days from India by post. It is therefore evident that, if telegraphic facilities were brought within the reach of the general public, it would be of the greatest assistance to trade, and would be a real boon to a mercantile community at present labouring under numerous handicaps.

### Imports and Exports.

The statistics of the trade of the port are taken from the customs figures, and may be regarded as fairly accurate.

The bulk of the imports, 78 per cent., come from the United Kingdom and India. Some of the goods credited to the British Empire are not produced in it. The chief imports are piece-goods, yarn and twist, dyes and sugar. Burma candles, also sugar, tea, tin and copper are imported from India. Textile imports are confined almost entirely to British goods. The chief classes of piece-goods imported are sheetings, longcloth, flintz, and red and black twill. The principal kinds of woollen goods imported are knaki, black and blue cashmere, serge and broadcloth. There is no demand for cloth of good quality. An extremely complicated customs classification is in force for piece-goods which contain an admixture of materials; this classification is based on the proportion of silk, cotton and wool contained.

In yarn and twist again, there is no serious competition with British goods. Almost all the yarn and twist is sent up to Kerman to meet the demands of the carpet industry. The yarns chiefly imported are Nos. 20 and 30, single and double.

The amount of tobacco imported is at present small. The older generation adhere to the

*katian* (water-pipe), in which they smoke Persian tobacco. Among the younger generation, the cigarette appears to be growing in favour, and imports are steadily increasing. The taste seems likely to spread in Persia as it has in India, and cigarettes seem to be in the present state of the country the one commodity for which there is a possible new opening. All cigarettes are sold in the same packets as in India and the United Kingdom and the general complaint is that they are too mild.

The state of the country hampers any development of natural products, the cost of transport being prohibitive in the case of such things as wheat. A European who had spent many years in Kerman recently stated that in years of good harvest he had seen fields of wheat set fire to clear the ground, as the crops were more than sufficient for local consumption, and it was too costly to transport the surplus to the coast. Until a more up-to-date means of transport is available, no great development in natural products can be looked for.

Goods are sent up to the interior by camel, donkey, or mule caravan, the last-named being scarce. An average load for a camel is 400 lbs. and for a donkey 180 lbs. Rates fluctuate enormously.

### Shipping Statistics.

The total trade of the port during the years 1909-10 to 1911-12 and the British and Indian shares in it are shown by the following table:—

1909-10, 1910-11, 1911-12.				
IMPORTS.	£	£	£	£
Total ..	340,363	436,328	425,640	
U. K. ..	125,014	209,558	201,239	
India ..	111,055	119,845	121,676	
EXPORTS.	£	£	£	£
Total ..	201,871	190,115	309,578	
U. K. ..	9,732	34,212	40,064	
India ..	115,780	82,343	107,434	

### BRITISH SHIPPING.

The following is a return of British steam shipping which entered and cleared in the

Foreign Trade of the Port of Bunder Abbas during the year 1911-12:—

ENTERED (with Cargo).			
From—	Vessels.	Tonnage.	
United Kingdom ..	28	49,974	
India .. ..	63	104,519	
Belgium .. ..	2	3,381	
Turkish Arabia ..	40	66,280	
Persia .. ..	1	1,505	
Total ..	134	225,659	

CLEARED (with Cargo).			
To—	Vessels.	Tonnage.	
Turkish Arabia ..	79	122,465	
India .. ..	41	67,785	
Total ..	120	190,250	

Return of steam shipping of all Nationalities which entered and cleared in the Foreign Trade of the Port of Bunder Abbas during the year 1911-12.—

ENTERED (with Cargo).			
	Vessels.	Tonnage.	
British .. ..	134	225,659	
Russian .. ..	8	16,238	
German .. ..	12	24,421	
Total ..	154	266,318	
CLEARED (with Cargo).			
	Vessels.	Tonnage.	
British .. ..	120	190,250	
German .. ..	10	19,961	
Total ..	130	210,211	

## MUSCAT.

Muscat is the capital and the principal port of the Sultanate of Oman, which comprises a portion of the south-eastern coast of Arabia up to the entrance to the Persian Gulf. Muscat is the only port of call for steamers in Oman, but as the town lies at the end of a cove surrounded by huge rocky hills it has no means of communication with the interior. The neighbouring town of Matrah, about 2 miles up the coast, supplies this want, and is the local centre for trade with the interior.

The population of Muscat is estimated at about 10,000 persons and that of Matrah at about 14,000. The interior of Oman is mountainous, and the inhabitants, for the most part, are poor. The population is estimated at about 300,000, of whom a considerable portion are nomadic.

The majority of the settled inhabitants live by agriculture, of which date cultivation is the principal form, but the mountainous and arid

nature of the country does not lend itself to remunerative agriculture, and the quarrelsome nature of the tribesmen does not encourage modern methods.

Commercial law does not exist, and claims against Arab subjects are difficult to settle.

The language of the country is Arabic, but many persons in Muscat and Matrah speak Persian, Baluchi and Hindustani. Business communications can, however, be sent in English. The post and telegraph offices at Muscat (the only ones in Oman) have been established by the Indian Government. The customs are managed by His Highness the Sultan through a paid Superintendent, a British Indian subject. An import duty, not exceeding 5 per cent. *ad valorem*, is levied by His Highness, and this can be paid in kind when there is any dispute about the value. No wheeled traffic exists in the country, locomotion being by means of camels and donkeys by land and country-craft by sea.

The following table shows the percentage of the total trade taken by each country. It will be noticed that India as usual stands first, and has handled almost half the trade. Belgium stands second in rank and the United Kingdom third :—

Country.	Import.	Export.	Total.	Percentage.
	£	£	£	£
Aden .. .. .	29,519	4,895	34,414	4.41
Arab Coast .. .. .	3,520	53,506	57,026	7.45
Belgium .. .. .	101,026	....	101,026	13.20
France .. .. .	666	....	666	0.10
Germany .. .. .	7,293	1,733	9,026	1.18
India .. .. .	214,105	162,082	376,187	49.20
Persia .. .. .	3,007	26,112	29,119	3.81
Egypt .. .. .	127	....	127	0.03
Russia .. .. .	48	....	48	0.01
Sweden .. .. .	2,312	....	2,312	0.30
Turkey in Asia .. .. .	3,521	5,868	9,389	1.24
United Kingdom .. .. .	93,321	5	93,326	12.21
United States .. .. .	5,086	33,307	38,393	5.04
Zanzibar .. .. .	....	11,878	11,878	1.55
Other countries .. .. .	....	2,093	2,093	0.27
Total .. .. .	463,551	301,477	765,028	100

The total volume of trade during the year 1912-13 amounted to £765,028 as against £691,707 for the previous year, showing a net increase of £73,321 as against the increase of £26,190 for the year 1910-11. These figures include statistics of the *buggalow* (native sailing craft) borne trade, amounting to £30,861 as against £49,810 for the previous year, showing a decline of £18,949, or 38 per cent. This decline gives an entirely wrong impression, unless it is remembered that £23,000 of bar silver, which was smuggled into India through the Cutch States during the year 1912, did not, in 1912-13 appear in the returns on the export side, as smuggling had apparently ceased to pay. Legitimate trade by means of sailing vessels rose from £26,808 last year to £28,194 this year, showing the slight increase of £1,386 or 5 per cent.

The total value of imports for the year amounted to £163,551 as against £101,320 for the previous year, showing a respectable increase of over £60,000 or 13 per cent. Arms and ammunition shew an increase for the year of £4,603 from which must be deducted the decrease of £24,828 under the head of bar silver. The result goes to show that the increase in legitimate trade is £22,456 on a total import trade of last year (after excluding arms and bar silver) of £252,925. The items of the import trade are such as might be expected to accord with the simple life and habits of the people.

### Arms Trade.

Great efforts were made during the year under report to check the progress of the arms trade, so far as relates to the illicit export of arms and ammunition to ports where the entry

of these goods is prohibited. This refers to the Persian and Baluchistan Coasts, where the trade is carried on by tribesmen from the Afghan Indian border. An arms warehouse was established at Muscat on September 1, 1912, of which the published rules and regulations required all arms and ammunition lying in private godowns to be brought and lodged in the warehouse, and all arms and ammunition imported after its establishment to be taken direct to the warehouse on arrival. The withdrawal of these arms from the warehouse was also subjected to check and license. Arms can only be sold retail and to approved buyers, and the number of arms and the amount of ammunition such purchasers are allowed to buy are also limited to comparatively small quantities. In this connection it is interesting to compare the imports for the months of April to the end of October, by which time the warehouse regulations had begun seriously to affect the traffic, with those for the next five months.

During the first seven months of the year the returns show an import of £14,739 as against £36,667 for the last five months, showing a decrease for the last five months of the year of £110,724, or roughly 75 per cent. When it is further added that the £36,667 of the last five months of the year are almost entirely limited to large imports consigned to His Highness the Sultan of Muscat and to the Shaikh of Kowit, it will be realised that the check on the arms traffic has been really severe and far-reaching. Prices have risen at least 50 per cent. As regards the share of each country in the trade, Belgium supplied goods to the value of £94,490, the United Kingdom £78,328 and Germany £3,216 only. The Anglo-Persian Oil Company of Muhammarah is now for the first time

competing with the oils of the Standard Oil Company, in an important kerosine trade.

### The Year's Shipping.

Altogether 98 steam vessels entered the port during the year 1912-13, representing a tonnage of 127,885 tons, of which 96 vessels entered with cargo, representing a tonnage of 125,555 tons, and 2 in ballast, representing a tonnage of 2,330 tons. The number of steam vessels that cleared from the port during the year was 86, representing a tonnage of 90,803 tons. Of the 86 vessels, 70 cleared with cargo and represented a tonnage of 72,326 tons, and 16 in ballast, representing a tonnage of 18,477 tons. The number of sailing vessels which entered the port was 63, representing a total tonnage of 5,021 tons. Of the 63 vessels, 42 entered with cargo, representing a tonnage of 3,461 tons, and 21 in ballast, representing a tonnage of 1,560 tons. The number of sailing vessels that cleared from the port was 30, representing a tonnage of 2,379 tons. Of these, 24 cleared with cargo and represented a tonnage of 1,667 tons, and 6 in ballast, representing a tonnage of 712 tons. The following table shows the number and tonnage of steam vessels of each

nation that entered and cleared the port during the year under review:—

	Number Percentage.	Tonnage Percentage.
British ..	86.73	75.89
German ..	12.39	23.15
Russian ..	0.88	0.96

The lines of steamers mentioned below maintained services from Europe during the year, viz.:—

British ..	Bucknall Steamship, Limited Strick Line, Limited West Hartlepool Steam Navigation Company
Russian ..	Compagnie Russe de Navigation à Vapeur et de Commerce
German ..	Hamburg-Amerika Line

The British India Company, who have the contract for the carriage of mails from and to India, provide one weekly fast mail service up and down, and also a weekly slow coasting service both ways. The vessels of the Arab Steamers, Limited, have also maintained a service between Bombay and Basra, but at irregular intervals.

The following is a return of British shipping (steamships) which entered and cleared in the Foreign Trade of the Port of Muscat during the Year 1912-13:—

#### ENTERED.

From—	With Cargo.		In ballast.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
United Kingdom .. ..	21	49,406	1	1,820	22	51,226
India .. ..	73	72,018	1	510	74	72,528
Sweden .. ..	1	2,093	....	....	1	2,093
United States .. ..	1	2,038	....	....	1	2,038
Total .. ..	96	125,555	2	2,330	98	127,885

#### CLEARED.

To—	With Cargo.		In Ballast.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
United Kingdom .. ..	1	2,475	..	..	1	2,475
India .. ..	62	55,578	10	9,172	72	64,750
Jeddah .. ..	4	7,277	4	4,265	8	11,542
United States .. ..	3	6,996	..	..	3	6,996
Colombo .. ..	..	..	1	2,375	1	2,375
Singapore .. ..	..	..	1	2,665	1	2,665
Total, .. ..	70	72,326	16	18,477	86	90,803

The following is a return of shipping (steam vessels) of all Nationalities which entered and cleared in the Foreign Trade of the Port of Muscat during the Year 1912-13 :—

## ENTERED.

Nationality.				With Cargo.		In Ballast.		Total.	
				Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
British	..	..	..	96	125,555	2	2,330	98	127,885
German	..	..	..	14	39,009	..	..	14	39,009
Russian	..	..	..	1	1,622	..	..	1	1,622
Total				111	166,186	2	2,330	113	168,516

## CLEARED.

Nationality.				With Cargo.		In Ballast.		Total.	
				Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
British	..	..	..	70	72,326	16	18,477	86	90,803
German	..	..	..	1	2,891	..	..	1	2,891
Russian	..	..	..	..	..	3	9,900	3	9,900
Total				71	75,217	19	28,377	90	103,594

## Chambers of Commerce.

Modern commerce in India was built up by merchants from the west and was for a long time entirely in their hands. Chambers of Commerce and numerous kindred Associations were formed by them for its protection and assistance. But Indians have in recent years, taken a large and growing part in this commercial life. The extent of their participation varies greatly in different parts of India, according to the natural proclivities and genius of different races. Bombay, for instance, has led the way in the industrial and commercial regeneration of the new India, while Bengal, very active in other fields of activity, lags behind in this one. Arising from these circumstances we find Chambers of Commerce in Bombay, Karachi, Calcutta, Madras and other important centres, with a membership both European and Indian; but alongside these have sprung up in recent years certain Associations, such as the Bombay Indian Merchants' Chamber and Bureau, of which the membership is exclusively Indian. These different classes of bodies are in no sense hostile to one another and constantly work in association.

The London Chamber of Commerce in 1912, realising the increasing attention demanded by the economic development of India, took steps to form an "East India Section" of their organization. The Indian Chambers work harmoniously with this body, but are in no sense affiliated to it, nor is there at present any inclination on their part to enter into such close relationship, because it is generally felt that the Indian Chambers can themselves achieve their objects better and more effectively than a London body could do it for them, and on various occasions the London Chamber, or the East India Section of it, have shown themselves out of touch with what seemed locally to be the immediate requirements of particular matters. A case in point was the recent agitation for increased financial provision in regard to railways. Both the London Chamber and the Indian Chambers made representations on this subject. But while in London special emphasis was laid on the allocation of funds for increased rolling stock, the Indian Chambers, led by the Bombay Chamber, had long previously realised that the time had come when the first desideratum was not additional engines and trucks but the improvement of the railway lines, so that the rolling stock already running could be utilized to great advantage and moved about with greater rapidity.

A new movement has recently been started by the Hon. Sir Fazulbhoj Karimbhoj Ibrahim, a leading millowner and public citizen of Bombay, which promises to lead to great improvement in strengthening Indian com-

mercial organization. Sir Fazulbhoj's plan is for the formation of an Indian Commercial Congress, which would meet once in every two or three years, each time in a different centre of activity, and enable those who are chiefly concerned in commercial and industrial developments in India to exchange views on current questions and associate themselves in the pursuit of a scientifically co-ordinated commercial policy. The proposal has met with approval in all parts of India and the next step will be the summoning of the first session of the Congress.

The Indian Merchants' Chamber and Bureau in Bombay issued in November a draft constitution of a proposed Indian Congress of Commerce, which was simultaneously circulated to other commercial associations for their opinions. The proposed constitution provides for a session of the Congress "from time to time as occasion may demand, but at least once every three years." Other provisions are as follow. The Congress shall consist of delegates elected by different commercial bodies in India, an electorate of recognised and well known public bodies "such as Chambers of Commerce, Leagues, Associations and so forth" being formed in each province. Each of such bodies shall be an electorate by itself or in combination with others. The delegates assembled in congress shall among themselves elect a committee of management representative of various parts of India and the Committee of Management shall elect its own chairman; The President, Vice-President and Honorary Secretary, or General Secretary, to be elected by the Congress. For the purpose of continuous work, the head office of the Committee of Management shall, unless otherwise determined by the Congress, be in Bombay, where the Secretary shall also reside. The electorates of any Province where the Congress is to meet shall form a Reception Committee six months before the date fixed for the meeting of the Congress, the duty of the Reception Committee being to raise funds for the defrayal of all expenses incidental to the holding of the Congress, the proper boarding and lodging of delegates, the hire of the place of assembly, or the erection of a convenient pandal for the purpose. The Reception Committee will be entitled to charge a reasonable fee from those who avail themselves of the boarding and lodging, provided the head office of the Congress shall be in Bombay until otherwise resolved by the Congress.

The following are details of the principal Chambers of Commerce and kindred bodies in India at the present time:—

### BENGAL.

The Bengal Chamber of Commerce was founded in 1834. Its headquarters are in Calcutta. Other societies connected with the trade and commerce of the city are the Royal Exchange, the Bengal Bonded Warehouse Association, the Calcutta Trades Association and the Bengal Na-

tional Chamber of Commerce. The Bengal Chamber is registered with a declaration of membership of 200. Its objects are the usual purposes connected with the protection of trade "in particular in Calcutta." There are two classes of members, Permanent and Honorary.

Merchants, bankers, shipowners, representatives of commercial, railway and insurance companies, brokers, persons and firms engaged in commerce, agriculture, mining or manufacture, and joint stock companies or other corporations, formed for any purpose or object connected with commerce, agriculture, mining or manufacture, and persons engaged in or connected with art, science or literature, may be elected as permanent members of the Chamber.

A candidate for election as a permanent member, whether an individual, a firm or a joint stock company or other corporation, must be proposed by one and seconded by another permanent member, and may be elected provisionally by the Committee, but that election is subject to confirmation at the next annual general meeting. The subscription to the funds of the Chamber of permanent members residing or carrying on business in Calcutta is Rs. 20 per annum, and that of permanent members residing or carrying on business elsewhere than in Calcutta Rs. 32 per annum. No entrance fee is charged. Honorary members are not required to subscribe to the funds of the Chamber. Officials and others indirectly connected with the trade, commerce or manufactures of Bengal, or who may have rendered distinguished service to the interests represented by the Chamber, may be elected honorary members by the Committee upon the proposal of any two permanent members whether members of the Committee or not. Strangers visiting the Presidency may be admitted by the Committee as honorary members for a period not exceeding two months on the proposal of any permanent member whether a member of the Committee or not. Honorary members are entitled to receive the last published report of the Committee, and to attend and speak but not to vote at any general meeting held during their membership, and may upon the invitation of the President, Vice-President or Chairman, as the case may be, attend under the like conditions any meeting of Committee or of any departmental committee or sub-committee.

The affairs of the Chamber are conducted by the following officers, namely, a President, Vice-President, seven ordinary members of Committee, a Secretary and Assistant Secretary and an Auditor. The officers of the Chamber, with the exception of the Secretary, Assistant Secretary and Auditor, act without remuneration. The following are the President and his Committee appointed for the year 1913-1914:—

*President*.—Hon. Mr. A. M. Monteath, (Mackinnon, Mackenzie & Co.)

*Vice-President*.—Hon. Mr. J. C. Shorrocks, (Geo. Henderson & Co.)

*Committee*.—Messrs. M. J. Calvo-coressi, (Ralli Bros.), W. E. Crum (Graham & Co.), H. Harris, (Chartered Bank of India, Australia and China), R. S. Highet, (Agent, East Indian Railway), the Hon. Mr. Norman McLeod (McLeod, & Co.), Mr. J. B. Strain (Bird & Co.) and Mr. A. Topping. (Macneill & Co.).

The Secretary of the Chamber is Mr. H. M. Haywood.

The following are the public bodies to which the Chamber has the right of returning representatives, and the representatives returned for the current year:—

*Viceroy's Legislative Council*.—The Hon'ble Mr. A. M. Monteath.

*Bengal Legislative Council*.—The Hon'ble Mr. J. C. Shorrocks, (Geo. Henderson & Co.) and the Hon'ble Mr. Norman McLeod.

*Calcutta Port Trust*.—Messrs. M. J. Calvo-coressi, W. E. Crum, C. J. Kerr, (Mackinnon, Mackenzie & Co.), A. C. Patterson, (Becker, Gray & Co.), the Hon. Mr. J. C. Shorrocks and Mr. A. Topping.

*Calcutta Municipal Corporation*.—Messrs. A. C. Patterson, T. R. Pratt, W. R. Rae, (Sun Insurance Office), and Shirley Tremcarne, (W. H. Targett & Co.)

*Bengal Boiler Commission*.—Messrs. T. Burns, (Barnagore Jute Factory Co., Ltd.), G. F. Scott, (Bengal Coal Co., Ltd.) and T. Wilson, (Jessop & Co., Ltd.)

*Board of Trustees of the Indian Museum*.—Mr. J. B. Lloyd, (Shaw, Wallace & Co.)

*Bengal Smoke Nuisances Commission*.—Messrs. A. B. Duncan, (Clive Jute Mills Co., Ltd.), and W. R. Steele, (Burn & Co., Ltd.)

*Calcutta Improvement Trust*.—Mr. W. K. Dods, (Agent, Hongkong and Shanghai Banking Corporation).

*European Defence Association*.—The Hon. Mr. J. C. Shorrocks.

The Chamber elects representatives to various other bodies of less importance, such as the committee of the Calcutta Sailors' Home, and to numerous subsidiary associations. The following are the recognised associations of the Bengal Chamber of Commerce:—

Calcutta Wheat and Seed Trade Association, Indian Jute Mills' Association, Indian Tea Association, Calcutta Tea Traders' Association, Calcutta Fire Insurance Agents' Association, Calcutta Import Trade Association, Calcutta Marine Insurance Agents' Association, The Wine, Spirit and Beer Association of India, Indian Mining Association, Calcutta Baled Jute Association, Indian Paper Makers' Association, Indian Engineering Association, Jute Fabrics Shippers' Association, Calcutta Hydraulic Press Association, Jute Fabric Brokers' Association and Baled Jute Shippers' Association.

The Chamber maintains a tribunal of arbitration for the determination, settlement and adjustment of disputes and differences relating to trade, business, manufactures, and to customs of trade, between parties, all or any of whom reside or carry on business personally or by agent or otherwise in Calcutta, or elsewhere in India or Burmah, by whomsoever of such parties the said disputes and differences be submitted. The Secretary of the Chamber acts as the Registrar of the Tribunal, which consists of such members or assistants to members as may, from time to time, annually or otherwise be selected by the Registrar and willing to serve on the Tribunal. The Registrar from time to time makes a list of such members and assistants.

The Chamber also maintains a Licensed Measurers Department controlled by a special committee. It includes a Superintendent, Deputy Superintendent and Assistant Superintendent and the staff at the time of the last official returns consisted of 125 officers. The usual system of work for the benefit of the trade of the port is followed. The Department has its

own provident fund and compassionate fund and Measurers' Club. The Chamber does not assist in the preparation of official statistical returns. It publishes weekly the *Calcutta Price Current* and also publishes a large number of statistical circulars of various descriptions in addition to a monthly abstract of proceedings and many other circulars on matters under discussion.

## BOMBAY.

The object and duties of the Bombay Chamber, as set forth in their rules and regulations, are to encourage a friendly feeling and unanimity among commercial men on all subjects involving their common good; to promote and protect the general mercantile interests of this Presidency; to collect and classify information on all matters of general commercial interest; to obtain the removal, as far as such a Society can, of all acknowledged grievances affecting merchants as a body, or mercantile interests in general; to receive and decide references on matters of usage and custom in dispute, recording such decisions for future guidance, and by this and such other means, as the Committee for the time being may think fit, assisting to form a code of practice for simplifying and facilitating business; to communicate with the public authorities, with similar Associations in other places and with individuals, on all subjects of general mercantile interests; and to arbitrate between parties willing to refer to, and abide by, the judgment of the Chamber.

The Bombay Chamber was established in 1836, under the auspices of Sir Robert Grant, who was then Governor of the Presidency, and the programme described above was embodied in their first set of rules. There are now affiliated with the Chamber the Bombay Mill-owners' Association, which exists to carry out the same general objects as the Chamber in the special interests of "millowners and users of steam and water power," and the Bombay Cotton Trade Association, which similarly exists for the special benefit of persons engaged in the cotton trade. According to the latest returns, the number of members of the Chamber is 120. Of these 15 represent banking institutions, 7 shipping agencies and companies, 3 firms of solicitors, 3 railway companies, 3 insurance companies, 5 engineers and contractors, 84 firms engaged in general mercantile business.

All persons engaged or interested in mercantile pursuits desirous of joining the Chamber and disposed to aid in carrying its objects into effect are eligible to election to membership by ballot. The member's subscription is Rs. 15 per month and an additional charge of Rs. 200 per annum is made to firms as subscription to the trade returns published by the Chamber. Gentlemen distinguished for public services, or eminent in commerce and manufactures, may be elected honorary members and as such are exempt from paying subscriptions. Any stranger engaged or interested in mercantile pursuits and visiting the Presidency may be introduced as a visitor by any Member of the Chamber inserting his name in a book to be kept for the purpose, but a residence of two months shall subject him to the rule for the admission of members,

## Officers of the Year.

The affairs and funds of the Chamber are managed by a committee of nine ordinary members, consisting of the chairman and deputy-chairman and seven members. The committee must, as a rule, meet at least once a week and the minutes of its proceedings are open to inspection by all members of the Chamber, subject to such regulations as the committee may make in regard to the matter. A general meeting of the Chamber must be held once a year and ten or more members may requisition, through the officers of the Chamber, a special meeting at any time, for a specific purpose.

The Chamber elects representatives as follows to various public bodies:—

**Legislative Council of the Governor-General,** one representative. The Chamber may elect anyone, but in practice they have hitherto returned their chairman.

**Legislative Council of the Governor of Bombay,** one representative, who may also be anyone, but is, in practice, always the deputy chairman.

**Bombay Municipal Corporation,** two members, elected for three years.

**Board of Trustees for the Improvement of the City of Bombay,** one member, elected for two years.

**Board of Trustees of the Port of Bombay,** five members, two and three being elected in alternate years.

Representatives on the Legislative Councils become ex-officio members of the committee of the Chamber, during their terms of office, if they are not already members.

The following are the officers of the Chamber for the year 1913-14 and their representatives on the various public bodies:—

**Chairman,** The Hon. Sir Charles Armstrong, Kt. (Lyon, Lord & Co., Ltd.)

**Deputy-chairman,** The Hon. Mr. W. L. Graham (W. & A. Graham & Co.).

**Committee,** Major H. A. L. Hepper, R. E., (Agent, G. I. P. Railway), Messrs. A. H. Froom (P. & O. S. N. Co.), D. M. Inglis (James Finlay & Co. Ltd.), Ralph Kidd (National Bank of India, Ltd.), W. H. Ogston (Killick, Nixon & Co.), H. Tressmann A. Blaschek & Co.), and G. E. Xydias (Ralli Bros.).

**Secretary,** Mr. R. E. Gregor-Pearse.

**Assistant Secretary,** Mr. Noel Wilkinson, B.A.

**Representatives on—**

**Viceregal Legislative Council:** The Chairman.

**Bombay Legislative Council:** The Deputy Chairman.



**Bombay Municipality :** Messrs. J. S. Ward-law Milne (Turner, Morrison & Co.) and D. M. Inglis.

**Bombay Improvement Trust,** Major H. A. L. Hepper, R. E.

**Bombay Port Trust,** The Chairman, the Hon. Mr. Herbert Greaves (Greaves, Cotton & Co.), the Hon. Sir Henry Procter (Killick, Nixon & Co.), Mr. A. H. Froom (P. & O. S. N. Co.) and Mr. W. L. Graham.

### Special Work.

One of the most important functions performed by the Chamber is that of arbitration in commercial disputes. Rules for this have been in existence for many years and have worked most satisfactorily. The decisions are in all cases given by competent arbitrators appointed by the General Committee of the Chamber and the system avoids the great expense of resort to the Law Courts.

A special department of the Bombay Chamber is its statistical Department, which prepares a large amount of statistical returns connected with the trade of the port and of great importance to the conduct of commerce. The department consists of eleven Indian clerks who, by the authority of Government, work in the Customs House and have every facility placed at their disposal by the Customs authorities. They compile all the statistical information in connection with the trade of the port, in both export and import divisions, which it is desirable to record. No other Chamber in India does similar work.

The Bombay Chamber publish a Daily Arrival Return which shows the receipts into Bombay of cotton, wheat and seeds, and a Daily Trade Return, which deals with trade by sea and shows in great detail imports of various kinds of merchandise and of treasure, while the same return contains particulars of the movements of merchant vessels.

The Chamber publishes twice a week detailed reports known as Import and Export manifests, which give particulars of the cargo carried by each steamer to and from Bombay.

Three statements are issued once a month. One shows the quantity of exports of cotton, seeds and wheat from the principal ports of the whole of India. The second gives in detail imports from Europe, more particularly in regard to grey cloths, bleached cloths, Turkey red and scarlet cloths, printed and dyed goods fancy cloth of various descriptions, woollens, yarns, metals, kerosine oil, coal, aniline dyes, sugar, matches, wines and other sundry goods. The third statement is headed, "Movements of Piece Goods and Yarn by Rail," and shows the despatches of imported and local manufactured piece-goods and yarn from Bombay to other centres of trade served by the railways.

The "Weekly Return" issued by the Chamber shows clearances of a large number of important descriptions of merchandise. A return of "Current Quotations" is issued once a week, on the day of the departure of the English mail, and shows the rates of exchange for Bank and Mercantile Bills on England and

Paris, and a large quantity of general banking and trade information.

The annual reports of the Chamber are substantial tomes in which the whole of the affairs of the Chamber add the trade of the port during the past year are reviewed.

The Chamber has also a Measurement Department with a staff of twelve, whose business is that of actual measurement of exports in the docks before loading in steamers. Certificates are issued by these officers with the authority of the Chamber to shippers and ship agents as to the measurement of cotton and other goods in bales or packages. The measurers are in attendance on the quays whenever there are goods to be measured and during the busy season are on duty early and late. The certificates granted show the following details:—

- (a) the date, hour and place of measurement;
- (b) the name of the shipper;
- (c) the name of the vessel;
- (d) the port of destination;
- (e) the number and description of packages;
- (f) the marks;
- (g) the measurement; and, in the case of goods shipped by boats,
- (h) the registered number of the boat;
- (i) the name of the tinal.

### Bombay Millowners' Association.

The Bombay Millowners' Association was established in 1875 and its objects are as follows:—

- (a) The protection of the interests of millowners and users of steam, water and or electric power in India;
- (b) The promotion of good relations between the persons and bodies using such power;
- (c) The doing of all those acts and things by which these objects may be furthered.

Any individual partnership or company, owning one or more mill or one or more press or presses one or more spinning or other factory or factories actuated by steam, water, electric or other power is eligible for membership, members being elected by ballot. Every member is entitled to one vote for each mill which is—

- (a) owned by such member;
- (b) subscribed for according to the rules of the Association by such member; and
- (c) worked by motive power separate and distinct from the motive power by which any other mill is worked.

If two or more mills are owned by any one member but all worked by one motive power, the member in question shall be entitled to one vote only in respect of the two mills.

The membership of the Association in 1913 numbered 78.

The following were elected in 1913 as the Association's Representatives on public bodies:—

**Bombay Port Trust,** Sir Vithaldas D. Thackersey, Kt.,  
**City of Bombay Improvement Trust,** The Hon'ble Sir Sassoon David, BART.  
**Victoria Jubilee Technical Institute,** Mr. Jehangir Bomanjee Petit.

The following is the Committee for 1913:—

Mr. J. F. Bradbury, (*Chairman*).  
 Mr. Jehangir B. Petit, (*Deputy Chairman*).  
 The Hon'ble Sir Sassoon David, BART.  
 Sir Dinshaw M. Petit, BART.  
 The Hon'ble Sir Fazulbhoy Currimbhoy Ebrahim, Kt.  
 Sir Vithaldas Damoder Thackersey, Kt.  
 The Hon'ble Mr. Manmohandas Ramji.  
 Mr. A. G. Dovey.  
 Mr. Rehmtulla Currimbhoy Ebrahim.  
 Mr. H. R. Greaves.  
 Mr. N. G. Hunt.  
 Mr. D. M. Inglis.  
 Mr. Cowasji Jehangir, (Junr.).  
 Mr. C. V. Mehta.  
 Mr. S. A. Nathan.  
 Mr. W. H. Ogston.  
 Mr. N. B. Saklatwala.  
 Mr. Dinshaw E. Wacha.  
 Mr. C. N. Wadia.  
 Mr. N. N. Wadia.  
 Mr. R. E. Gregor-Pearse, *Secretary*.

### Indian Merchants' Chamber.

The Bombay Indian Merchants' Chamber and Bureau was established in 1907 with the following objects:—"To encourage a friendly feeling and unanimity among commercial men on all subjects involving their common good; to promote and protect the trade, commerce and manufactures of India and in particular to promote the general commercial interests of the Presidency of Bombay; to consider and deliberate on all questions affecting the rights of Indian Merchants, to represent to the Government their grievances, if any, and to obtain by constitutional methods the removal of such grievances; to collect and compile and distribute in such manner as may be most expedient for purposes of disseminating commercial and economic knowledge all statistics and other information relating to trade, commerce and finance, specially Indian; as well as to form and maintain a library, and generally to do all such matters as may promote the above objects in view; to arbitrate between parties willing to refer to and abide by the judgment of the Chamber; to receive and decide references of matters of usage and custom in dispute, regarding such decisions for future guidance and assisting by this and such other means, as the committee for the time being may think fit, to form a code of practice so as to simplify and facilitate the transaction of business."

The Chamber has not yet taken up the work of arbitration, measurements, &c.

The following bodies are connected directly and indirectly with the Chamber, though no public body is directly affiliated to it:—

The Bombay Native Piece-goods Merchants' Association (which sends a large number of representatives);

The Grain Merchants' Association (which is a member); and

The Hindustani Native Merchants' Association (which is a member).

The Chamber elects a representative jointly with the Bombay Native Piece-goods Merchants' Association to the Bombay Legislative Council and a representative to the Board of Trustees for the Port of Bombay, whenever it is so notified by the Government (*vide* Act No. 1 of 1909). The Chamber also has the right to elect a representative on the Board of the Bombay Commercial College.

Any person engaged in mercantile pursuits or interested in trade and commerce desirous of joining the Chamber is eligible for membership, there being two classes of members, *viz.* Ordinary and Honorary. Ordinary members shall be (1) Resident members who pay Rs. 30 annual fee and (2) Mofussil members who pay Rs. 5 as annual fee. An ordinary member also pays an entrance fee of Rs. 50 on being elected.

Gentlemen distinguished for public services or eminent in commerce and manufactures or otherwise interested in the aims and objects of the Chamber may be elected as Honorary members by a General Meeting of the Chamber on the recommendation of the Committee and as such are exempted from paying subscriptions. They are not entitled to vote at any meeting of the Chamber nor are they eligible to serve on the Committee. They are, however, supplied with all the publications of the Chamber free of charge.

The following are the Officers of the Chamber for the year 1912-13:—

*Chairman*.—The Hon. Mr. Manmohandas Ramji.

*Vice-Chairman*.—Mr. Purshottamdas Thakoredas.

*Committee*.—Mr. Dinshaw Edulji Wacha, the Hon. Sir Vithaldas Damodar Thackersey, the Hon. Sir Ebrahim Rahimtulla, the Hon. Mr. Lalubhai Samaldas, Sir Shapurji B. Broacha, Messrs. Madhavji Thackersey, Walji Sunderji, Morarji Velji, Ratansi Mulji, Naranji Haribhai, the Hon. Sir Fazulbhai Currimbhai Ebrahim, Messrs. P. J. Billimoria, Chaturbhuj Shrivji, Jethabhai Walji, Sorabji Edulji Warden, Motilal Vallabhji, Gopalji Walji Sunderji, Mathuradas Vasanji Khimji, Mulji Haridas, Revashanker Jagjiwan, Jainarain Hindumal Dani and Devidas Madhavji Thackersey.

*Representative to the Bombay Legislative Council*.—Hon. Mr. Manmohandas Ramji.

*Secretary*.—Mr. J. K. Mehta, M. A.

*Assistant Secretary*.—Mr. M. V. Vachharajani, B.A., LL.B.

*Hon. Auditor*.—Mr. A. C. Rice, Chartered Accountant.

*Solicitors*.—Messrs. Edgelow, Gulabchand, Wadia & Co.

The Chamber publishes every month a Journal in Gujarati giving information on commercial and industrial subjects and publishing all statistics considered important relating to the trade and commerce of India.

### Cotton Trade Association.

The Bombay Cotton Trade Association was founded in 1876. The objects for which it was established were, *inter alia*, "to adjust disputes between persons engaged in the cotton trade, to establish just and equitable principles in the trade, to maintain uniformity in rules, regulations and usages in the trade, to adopt standards of classification in the trade, to acquire, preserve and disseminate useful information connected with the cotton interests throughout all markets and generally to promote the cotton trade of the City of Bombay and India and augment the facilities with which it may be conducted." The Association had in 1913 50 shareholders and 50 associate members. Its affairs are managed by a Board of Directors, consisting of eight members, who, as appointed for the current year, are as follow:—

*Chairman*—Mr. T. D. Moore (New Mofussil Company.)

*Deputy Chairman*—Mr. Osborne Marshall (Drennan & Co.)

*Members*,—Messrs. J. Muller (Volkart Bros.), C. W. Bruel (Bruel & Co.), J. P. Crystal (Crystal, T. & Co.) J. Ward (Ralli, Bros.), M. N. Hogg (Forbes, Forbes, Campbell & Co.), Otto Meyer (Gaddum & Co.), and one other.

### Native Piece-Goods Association.

The objects of the Association are as follow:—

(a) To promote by creating friendly feelings and unity amongst the Merchants, the busi-

ness of the piece-goods trade in general at Bombay, and to protect the interest thereof; (b) to remove, as far as it will be within the powers of the Association to do so, all the trade difficulties of the piece-goods business and to frame such line of conduct as will facilitate the trade; (c) to collect and assort statistics relating to piece-goods and to correspond with public bodies on matters affecting trade, and which may be deemed advisable for the protection and advancement of objects of the Association or any of them; and (d) to hear and decide disputes that may be referred to for arbitration.

The following are the office-bearers for the current year:—

*Chairman*—The Hon. Mr. Manmohandas Ramji.

*Deputy Chairman*—Mr. Madhavji Thakersey.

*Hon. Joint Secretaries*—Messrs. Purshotam Kanji and Javerchand Kallianji.

*Hon. Treasurer*—Mr. Kallianji Damodar.

### Grain Merchants' Association.

The object of this body is "to promote the interests of the merchants and to put the grain and seeds trade on a sound footing. It is an influential body of large membership. The office holders for the current year are as follow:—

*Chairman*—Mr. Lukhamsee Napoo.

*Vice-Chairman*—Mr. Hirji Mulji.

*Hon. Secretary*—Mr. Naranji Haribhai.

*Secretary*—Mr. Lalshanker Harprasad.

## KARACHI.

The objects and duties of the Karachi Chamber are set forth in terms similar to those of Bombay. Qualifications for membership are also similar. Honorary membership is conferred upon "any gentlemen interested in the affairs and objects of the Chamber", subject to election by the majority of the votes of members. All new members joining the Chamber pay Rs. 100 entrance fee and the monthly subscriptions is Rs. 6 for any member contributing Rs. 600 to the Chamber Fund, in addition to entrance fee, and Rs. 12 without such contribution. The subscription for the Chamber's periodical returns is Rs. 5 per month. The affairs of the Chamber are managed by a committee of ten members, consisting of a Chairman, Vice-Chairman and eight members, elected at the annual meeting of the Chamber in January or immediately after. The Chamber elects a representative on the Bombay Legislative Council and three representatives on the Karachi Port Trust. There were last year 54 members of the Chamber, and 7 Honorary Members.

The following are the officers of the Chamber for the current year:—

*Chairman*—The Hon. Mr. M. de P. Webb, C.I.E., (Forbes, Forbes, Campbell & Co.).

*Vice-Chairman*—Mr. W. N. Nicholas (Anderson & Co.).

*Managing Committee*—Messrs. J. H. Fyfe, (Mackinnon Mackenzie & Co.), J. I. Murray (Ewart, Ryrie & Co.), E. Nevenhofer (Volkart, Bros.), H. F. Pfister (Ralli Bros.), H. C. Sharpe

(N. W. Railway), T. J. Stephen, (National Bank of India, Ltd.), G. W. Wilson (Donald Graham & Co.), S. C. Woodward (Clements, Robson & Co.).

*Representative on the Bombay Legislative Council*—The Hon. Mr. M. de P. Webb. (Mr. M. U. Nicholas during Mr. Webb's absence on leave).

*Representative on the Karachi Port Trust*, The Hon. Mr. M. de P. Webb, Mr. James Kenyon, (Sanday, Patrick & Co.), Mr. J. H. Fyfe.

*Secretary*—Mr. E. L. Rogers.

*Public Treasurer*—Captain S. Mylcrist

The following are the principal ways in which the Chamber gives a special assistance to members. The Committee take into consideration and give an opinion upon questions submitted by members regarding the custom of the trade or of the Port of Karachi. The Committee undertake to nominate European surveyors for the settlements of disputes "as to the quality or condition of merchandise as to the quality in which both parties desire the Chamber to do so." When two members of the Chamber or when one member and a party who is not a member have agreed to refer disputes to the arbitration of the Chamber or of an arbitrator or arbitrators nominated by the Chamber, the Committee will undertake to nominate an arbitrator or arbitrators, under certain regulations. A public measurer is appointed under the authority of the Chamber to measure pressed bales of cotton, wool, hemp, hides and other merchandise in Karachi.

## MADRAS.

The Madras Chamber of Commerce was founded in 1886. All merchants and other persons engaged or interested in the general trade, commerce and manufactures of Madras are eligible for membership. Any assistant signing a firm or signing *per pro* for a firm is eligible. Members who are absent from Madras but pay their subscriptions may be represented in the Chamber by their powers-of-attorney, as honorary members, subject to ballot. Honorary members thus elected are entitled to the full privilege of ordinary members. Election for membership is by ballot at a general meeting, a majority of two-thirds of the recorded votes being necessary to secure election. Every member pays an entrance fee of Rs. 100, provided that banks, corporate bodies and mercantile firms may be represented on the Chamber by one or more members and are liable for an entrance fee of Rs. 100 once in ten years each. The subscription shall not exceed Rs. 160 per annum, payable quarterly in advance, subject to reduction from time to time in accordance with the state of the Chamber's finances. Absentees in Europe pay no subscription and members temporarily absent from Madras pay one rupee per month. Honorary members are admissible to the Chamber on the usual conditions. Members becoming insolvent cease to be members but are eligible for re-election without repayment of the entrance donation.

The Chamber undertakes arbitrations and surveys, the granting of certificates of origin and the registration of trade marks. One of the rules for the last named is "that no trade mark on ticket shall be registered on behalf of an Indian firm trading under a European name."

The following publications are issued by the Chamber:—Madras Price Current and Market Report, Tonnage Schedule and Madras Landing Charges and Harbour Dues Schedule.

There are 39 members and two honorary members of the Chamber in the Current year and the officers and committee for the year are as follows:—

**Chairman**—Mr. W. B. Hunter, (Bank of Madras).

**Vice-Chairman**—Mr. Gordon Fraser, (Best & Co., Ltd.).

**Committee**—Messrs. A. R. Anderson, (Madras and Southern Mahratta Railway Co.), A. J. Leech, (T. A. Taylor & Co.), J. P. Simpson, (Gordon, Woodroffe & Co.), A. P. Symonds, (Binny & Co., Ltd.), F. E. L. Worke, (Walker & Co.).

**Secretary**—Mr. A. E. Lawson.

The following are bodies to which the Chamber are entitled to elect representatives, and the representatives elected last year:—

**Madras Legislative Council**—The Hon'ble Mr. A. D. Jackson.

**Madras Port Trust**—Messrs. Gordon Fraser, J. A. Boyson, (Binny & Co., Ltd.), A. H. Deane, (Dymes & Co., Ltd.), and R. Greenhall, (M. and S. M. Railway).

**Madras Municipal Corporation**—Messrs. W. B. Hunter, G. H. Straker (Alfred Young & Co.), and H. H. Chettle (Holland and Moss).

**British Imperial Council of Commerce, London**—Mr. A. J. Yorke (in Europe).

**Indian Tea Cess Committee**—The Hon'ble Mr. A. D. Jackson.

## Southern India Chamber.

The Southern India Chamber of Commerce has its Registered Office in Madras. The objects of the Chamber are those usual for such bodies, concerning the promotion of trade, especially in the Madras Presidency, and the interests of members. Special objects are stated to be:—

"To maintain a library of books and publications of commercial interest, so as to diffuse commercial information and knowledge amongst its members.

"To establish Museums of commercial products or organise exhibitions, either on behalf of the Chamber or in co-operative with others."

There are two classes of members, permanent and honorary. The usual conditions as to eligibility for election prevail.

There are no bodies affiliated to the Chamber. The Chamber does not enjoy the right of electing representatives to any public bodies, though its members hold seats in the Madras Legislative Council, Port Trust and Municipal Corporation.

The Chamber's Executive Committee elected in 1913 is as follows:—

**President**, Rao Bahadur P. Theagaraya Chettiar, B.A.

**Vice-Presidents**, Khan Bahadur M. A. Kuddus Badshe Sahib and Dewan Bahadur Govindoss Chathurbhoojadoss.

**Honorary Secretaries**, M. R. Ry. P. N. Muthusami Naidu Garu, B.A., and Moulana Abdul Subhan Sahib.

**Members**.—Mr. D. V. Hanumantha Rao, M. R. Ry. P. Aiyanna Chettiar Ayl., Khan Bahadur Walji Lalji Saif, Mr. C. T. Alwar Chetty, B.A., M. R. Ry. C. Srinivasachari Ayl., Rao Bahadur G. Narayanaswami Chettyar Ayl., H. H. Mahomed Abdul Azeez Sahib, The Secretary of the Indian Bank, M. R. Ry. V. Arunagaj Naidu Garu, B.A., Yakub Hussain Sahib, M. R. Ry. C. Ramanujam Chetty Garu, Meer Abdur Rahiman Sahib, Rao Sahib T. Namburumal Chetty Garu, B.A., Dewan Bahadur K. Krishnaswami Rao, C.I.E., M. R. Ry. T. Seetharama Chetty Garu, Hajee Mahomed Hancefi Sahib, M. R. Ry. K. Nannimalwar Chetty Garu, Mr. A. M. Esa Bhai, Mr. M. Jamal Mahomed Sahib, Messrs. M. Somasundaram Chetty & Co., Mr. Haridoss Visanje, M. R. Ry. V. Thiruvengadathan Chettiar.

**Asst. Secretary**, C. Duraiswami Aiyangar, B.A.

## UPPER INDIA CHAMBER.

The Upper India Chamber of Commerce is concerned with trade, commerce and manufactures in the United Provinces and has its registered office at Cawnpore. Members are elected by the Committee, subject to confirmation by the next general meeting of the Chamber. Honorary members are elected on the usual qualifications, but can neither serve in the Committee nor vote at meetings of the Chamber. There is no entrance fee for membership, but subscriptions are payable as follows:—A firm, company or association having its place of business in Cawnpore, Rs. 200 a year; An individual member, resident or carrying on business in Cawnpore, Rs. 100; Firms or individuals having their places of business or residence outside Cawnpore pay half the above rates, but the maintenance of a branch office in Cawnpore necessitates payment of full rates.

The affairs and funds of the Chamber are managed by a Committee of from five to ten members, which has power to constitute Local Committees, of from four to seven members each, at trade centres where membership is sufficiently numerous to justify the step. Such

Local Committees have power to communicate only with the Central Committee.

The Chamber appoints arbitration Tribunals for the settlement and adjustment of disputes when invited to do so, members of the Tribunals being selected from a regular printed list of arbitrators.

The Chamber has in the present year 33 Cawnpore members, 26 members in outstations, and four honorary members.

The following are the officers:—

*President*—The Hon. Mr. H. Ledgerd (Cooper, Allen & Co.).

*Vice-President*—Mr. R. B. Discoe (Elgin Mills Co., Ltd.).

*Member*.—Mr. A. B. Shakespear, C.I.E., (Begg, Sutherland & Co.), the Hon. Rai Bishambhar Nath Bahadur (Banker), Mr. J. D. Fynn (Divisional Traffic Manager, E. I. Railway), Mr. C. O'Malley (Cawnpore Cotton Mills Co., Ltd.), Mr. T. D. Edelman (Allen Bros. & Co., Ltd.).

*Secretary*—Mr. J. G. Ryan.

## PUNJAB.

The Punjab Chamber of Commerce has its headquarters at Delhi and exists for the care of mercantile interests on the usual lines in the Punjab, the North-West Frontier Province and Kashmir. There are affiliated branches of the Chamber at Lahore, Amritsar, Rawalpindi and Srinagar. Members are elected by ballot, the only necessary qualification being interest in mercantile pursuits. There is no entrance fee. The rate of subscription is Rs. 10 per month. The following are the Officers, Committee and Representatives on public bodies for the current year:—

*President*—The Hon'ble Mr. James Currie, (James Currie & Co., Delhi).

*Vice-President*—Mr. W. A. Phillips, (National Bank of India, Ltd., Delhi Branch.)

*Committee*—Messrs. W. Angelo, (Delhi London Bank, Ltd., Delhi), W. L. La Touche, (District Traffic Superintendent, B. B. &

C. I. Railway.), J. C. Roberts, (Henri Gutmann & Co.), J. C. Read, (Delhi and Northern India Flour Mills, Ltd.), J. G. Griffin, (Delhi Electric Tramways and Lighting Co.), Lala Har Kishen Lal, (Peoples Bank of India, Ltd.), Mr. J. D. Fynn; (District Traffic Manager, E. I. R.), Mr. M. Thomas, (Kahn and Kahn.)

*Representatives on Public Bodies*:—

*Punjab Legislative Council*—The Hon'ble Mr. James Currie & Co.

*Delhi Municipality*—Mr. J. C. Roberts.

*Lahore Municipality*—Mr. W. Muir Masson, (Secretary, Punjab Banking Co., Ltd.), Rai Bahadur Mohan Lal, (Proprietor, R. S. Munshi Gulab Singh and Sons) and The Hon'ble R. B. Ram Saran Dass, (Proprietor Mehta Ram Mills.)

*Secretary*—Mr. J. Kenton Denning.

## BURMA.

The Burma Chamber of Commerce, with headquarters at Rangoon, exists to encourage friendly feeling and unanimity among commercial men on all subjects involving their common good, to promote and protect the general mercantile interests of the province, to communicate with public authorities, associations and individuals on all matters, directly or indirectly affecting these interests, and to arbitrate between parties willing to refer to, and abide by, the judgment of the Chamber. The following are affiliated bodies:—

Burma Fire Insurance Association,

Burma Marine Insurance Agents' Association,

Rangoon Import Association.

The Chamber elects representatives to the following Public Bodies:—

† Burma Legislative Council,

Rangoon Port Trust Board,

Rangoon Municipal Committee?

Victoria Memorial Park Trustees,

Pasteur Institute Committee.

All merchants, bankers and persons engaged or interested in mercantile pursuits desirous of joining the Chamber are eligible for membership. Officials and others indirectly connected with the trade of the province, or who may have rendered distinguished service to the interests represented by the Chamber, may be elected by the Committee, either on their own motion or on the suggestion of two Members, as Honorary Members of the Chamber. The subscription is Rs. 20 per month.

The Chamber undertakes arbitrations in addition to its ordinary work. It does not publish any statistical returns.

The following are the Officers, Committee

and Representatives on public bodies for the current year:—

**Chairman**—The Hon'ble Mr. B. J. B. Stephens (Bombay-Burma Trading Corporation, Ltd.)

**Vice-Chairman**, Mr. Jas. Wood, (Bullock Brothers & Co., Ltd.)

**Committee**—Messrs. J. C. Mackendrick, (Irrawaddy Flotilla Co., Ltd.), W. Buchanan, (Finlay, Fleming & Co.), J. Y. Munio, (National Bank of India, Ltd.), J. W. Anderson, (Steel Brothers & Co., Ltd.), H. E. Smith, (J. & F. Graham & Co.), H. Schrader, (Mohr Brothers & Co., Ltd.), W. Macdonald, (Harperlink, Smith & Co.) and S. Balthazar, (Balthazar & Son.).

**Secretary**—Mr. C. A. Cuttriss.

**Representative on the Burma Legislative Council**—The Hon'ble Mr. B. J. B. Stephens.

**Representatives on the Rangoon Port Trust Board**—Messrs. J. R. Halliday, (on leave) and D. Robertson, (acting), (both of the Arracan Co., Ltd.), The Hon'ble Mr. B. J. B. Stephens, Mr. J. C. Mackendrick, and Mr. W. Macdonald.

**Representative on the Rangoon Municipal Committee**—Mr. S. Balthazar.

**Representative on the Board of Trustees of Victoria Memorial Park**—The Hon'ble Mr. B. J. B. Stephens.

**Representative on the Pasteur Institute Committee**—The Hon'ble Mr. B. J. B. Stephens.

## COCANADA.

The following are the office holders of the Cocanada Chamber of Commerce, which has its head-quarters at Cocanada, the chief port on the Coromandel Coast, north of Madras:—

Messrs. P. J. Rose (Bank of Madras), **Chairman**; A. Gardiner and B. Eddington (Coromandel Co., Ltd.), E. H. D'Cruz (Wilson & Co.), A. E. Todd (Simson Bros.), M. R. Ry. Rao Bahadur K. Suryanarayana Murthy Naidu (Guru and G. M. Lake (Innes & Co.), W. Macintosh (Shaw Wallace & Co.), R. J. Hunter (Ripley & Co.) and E. Wunster Volkart Bros.).

**Secretary**, Mr. H. Muller.

The Rules of the Chamber provide "that by the term 'member' be understood a mercantile firm or establishment, on the permanent agency of a mercantile firm or establishment, or a society of merchants carrying on business in Cocanada, or other place in the Districts of Kistna, Godavari, Vizagapatnam, and Ganjam, and duly electing according to the Rules of the Chamber, and that all such be eligible, but only members resident in Cocanada can hold office." Members are elected by ballot. The Com-

mittee, when called upon by disputing members or non-members of the Chamber, give their decision upon all questions of mercantile usage and arbitrate upon any commercial matter referred to them for final judgment. In the former case a fee of Rs. 16 and in the latter a fee of Rs. 32 must accompany the reference.

The Committee consist of 4 members, including the Chairman, and 2 supplementary members; the Chairman to be elected by ballot at the general meeting of January in each year, for a term of 12 months; and the Committee, with 2 supplementary members, at the general meetings of January and July in each year, for the term of 6 months. The entrance fee for each member whose place of business is in Cocanada is Rs. 50 and for each member whose place of business is elsewhere be Rs. 25. The subscription for each member whose place of business is in Cocanada is Rs. 120 per annum, and for each member whose place of business is elsewhere be Rs. 60 per annum, payable quarterly in advance.

A weekly slip of current rates of produce, freights, and exchange is drawn up by the Committee.

## CEYLON.

The Ceylon Chamber of Commerce was incorporated in 1895 and has its head quarters at Colombo. All firms and persons engaged in the general trade of Ceylon are admissible as members and every person or firm desirous of joining the Chamber must be proposed by one member, seconded by another and balloted for by the whole Chamber. The affairs of the Chamber are conducted by a Board of Directors consisting of Chairman and Vice-Chairman and from five to 10 members.

The following is the membership of this Committee at the present time:—

Mr. Wm. Moir of Louis Brown & Co.,  
(Chairman).

„ Jas. Lochore of Carson & Co.,  
(Vice-Chairman).

„ R. S. Philpott, (P. & O. S. N. Co.)  
H. G. Bols.

„ W. G. Macvicar, (Chartered Bank).

„ R. Freudenberg,

„ A. J. Martin.

„ H. E. Haines,

„ H. Goodwyn.

The Chamber maintains an official Committee from whom members are appointed to conduct surveys and arbitrations. The Chambers are not affiliated bodies. The following are the public bodies to which the Chamber elects representatives and the representatives elected for the current year:—

**Colombo Port Commission**—Messrs. J. Lochore (Carson & Co.), T. Leese (Delmege Forsyth & Co.), J. A. Ridge (Ceylon Wharfage Co.) and R. S. Philpott (P. & O. S. N. Co.)

**Colombo Municipality**—Mr. T. Leese.

**Planters' Association of Ceylon**—(General, Coast Agency and Labour): Messrs. W. Moir (Louis Brown & Co.), J. Lochore, Hon. Mr. W. H. Tigg (Whittall & Co.), W. Shakespeare (Carson & Co.), E. Turner (Geo. Stewart & Co.), T. L. Villiers (Stewart & Co.), W. G. Macvicar (Chartered Bank), G. L. Cox (Carson & Co.) and F. M. Mackwood (Mackwood & Co.), one seat being vacant; (Thirty Committee) Messrs. W. Moir, J. Lochore, W. G. Macvicar and G. L. Cox, two seats being vacant.

## Indian Municipalities.

There were 714 Municipalities in British India, excluding Native States, in the year 1911-12, containing a total resident population of more than 17 million people within their limits. This figure represents 7 per cent. of the total population of British India. Of the stated Municipalities 539 had a population of less than 20,000, and the remaining 176, a population of over 20,000. The average size of the Municipalities, according to population, varies in the principal Provinces from about 7,000 in Assam to nearly 42,000 in Madras. In the Central Provinces (including Berar) and the Punjab the averages are 17,000 and 18,000 respectively. In Bombay and Burma it is about 21,000. In Bengal it is 24,000 and in the United Provinces 37,000.

**Constitution.**—Elected members are one-half (51 per cent.) of the total number of members in all Municipalities taken together. *Ex-officio* members are 14 per cent. and nominated members 35 per cent. Elected members are in a majority in the cities of Bombay, Madras, and Rangoon, and in the Municipalities of Bengal (excluding Calcutta), the United Provinces, Bihar and Orissa, and the Central Provinces and Berar. They are 50 per cent. in Calcutta. There are no elected members in the Municipalities of the North-West Frontier Province and British Baluchistan; and they number only 17 per cent. of the total number of members of the Municipalities in Burma (excluding Rangoon) and 33 per cent. in Assam. In these places nominated members constitute a majority. The non-officials outnumber the officials in all Municipalities taken together in the proportion of nearly 4 to 1. The preponderance is greatest in the City of Bombay where 91 per cent. of the members are non-officials. Nearly ninety per cent. of the members of all Municipalities taken together are Indians. Indians outnumber Europeans in all cases except in Rangoon where they represent 48 per cent. In the Punjab, the Central Provinces and Berar and in the Municipalities of Bombay (excluding Bombay city), more than 90 per cent. of the total numbers are Indians.

**Income.**—Generally speaking, the income of the Municipalities is small. The four cities—Calcutta, Bombay, Madras, and Rangoon—together provide nearly 40 per cent. of the total income (i.e., excluding receipts credited to the head "Extraordinary and Debt" of Rs. 7,46,00,000. Of the others only 13 have an annual income of over Rs. 5,00,000. The average income of all Municipalities other than the four mentioned above is only Rs. 64,144. It is highest in Madras (Rs. 90,000) and lowest in Assam (Rs. 31,000). The following table shows in lakhs of rupees the proceeds of the principal heads of revenue for all Municipalities taken together and the percentage borne by each principal head to the total income:—

	Income (in lakhs of rupees).	Per- centage to total income.
<b>Municipal rates and taxes:—</b>		
House and land tax	158.43	21.2
Octroi (net)	138.64	18.6
Water rate	79.87	10.7

	Income (in lakhs of rupees).	Per- centage to total income.
Conservancy tax	52.33	7.0
Vehicles and animals	19.23	2.6
Professions and trades	15.87	2.1
Tolls on roads and ferries	15.01	2.0
Lighting rate	12.24	1.7
Other taxes	22.79	3.0
Revenue derived from municipal property and powers apart from taxation	121.52	16.3
Grants, contributions, and miscellaneous	109.87	14.8

**Octroi.**—This is the chief source of income in the Punjab, the North-West Frontier Province, the United Provinces; the Central Provinces and Berar, and Bombay (excluding Bombay City). The percentage borne by it to the total income of the Municipalities of the province is given below:—

	Per cent.
Punjab	60
North-West Frontier Province	65
United Provinces	40
Central Provinces and Berar	33
Bombay (excluding Bombay City)	32

Octroi is also levied in Bombay City where it contributed 14 per cent. of the total income. It is not levied elsewhere except in the Sambalpur District which at one time belonged to the Central Provinces but now forms part of the new province of Bihar and Orissa.

**Rates and Taxes.**—In Bengal, Madras, Assam, and in the four cities of Calcutta, Bombay, Rangoon and Madras, other Municipal rates and taxes, the most important of which is the tax on houses and lands, provide the greater part of the total Municipal income. In Burma, excluding Rangoon, nearly half the total income is derived from Municipal property, chiefly markets and slaughter houses. The general incidence of taxation per head of the population of the municipal area was Rs. 2.95 in 1911-12, but it varies greatly in different areas, thus:—

	Rs.
Rangoon	9.84
City of Bombay	10.87
Calcutta	9.58
City of Madras	3.36
North-West Frontier Province	3.08
Punjab	2.38
Presidency of Bombay	2.44
Bihar and Orissa	1.08
Burma	2.29
Central Provinces and Berar	1.90
United Provinces of Agra and Oudh	1.75
Assam	1.53
Bengal	1.92
Presidency of Madras	1.35
Coorg	1.02

**Expenditure.**—The total expenditure of the Municipalities, excluding that debited to the head "Extraordinary and Debt," amounted to Rs. 7,20,00,000 in 1911-12. The following table shows what percentage of the total expenditure is debited to the principal heads in the chief Provinces.

	Conservancy	Public Works, including roads, buildings, stores & establishment.	General administration, including cost of collection.	Interest on loans.	Drainage.	Water-supply.	Fire lighting, police.	Hospitals and vaccination.	Education.
Burma (excluding Rangoon) ..	18.4	15	9.1	3.3	4.0	6.8	6.2	15.3	4.01
Rangoon .. .. .	15.4	13.8	6.9	16.7	4.6	12.5	9.1	4.0	5.7
Assam .. .. .	26.6	18.4	6.8	0.1	2.3	25.7	4.2	3.0	4.0
Bengal (excluding Calcutta) ..	30.3	16.5	7.3	3.3	5.9	6.7	7.1	6.4	3.3
Calcutta .. .. .	15.9	13.9	9.0	21.4	8.0	12.1	10.4	1.8	1.8
Bihar and Orissa .. .. .	20.6	15.2	8.2	1.6	6.5	9.0	4.2	18.9	3.1
United Provinces .. .. .	19.6	12.1	11.7	6.1	10.3	12.6	6.3	12.8	5.1
Punjab .. .. .	13.5	14.4	11.4	2.5	6.2	11.5	6.7	9.5	8.2
Bombay (excluding Bombay City) .. .. .	15.3	17.3	9.3	2.5	6.0	16.0	5.3	5.0	14.8
Bombay City .. .. .	16.5	11.9	6.1	20.1	11.4	5.4	4.6	17.7	3.9
Central Provinces and Berar ..	16.3	10.4	10.9	2.4	7.8	21.7	3.2	3.4	9.9
Madras(excluding Madras City)	19.4	24.4	6.9	2.7	2.4	11.6	3.9	10.0	9.5
Madras City .. .. .	9.02	23.8	6.9	9.7	21.2	14.2	2.8	4.8	0.9
Total for British India ..	17.5	15.0	8.7	9.5	8.0	11.7	6.1	5.9	5.9

**Notified Areas.**—In the Punjab, the United Provinces, Burma, Bombay, the Central Provinces and Berar and the North-Western Frontier Province certain provisions of the Municipal Acts are extended to small towns, which are not fitted for the full responsibilities of Municipal Governments, but which nevertheless require organised measures for sanitation and other purposes. These are described as "Notified Areas," and under the Acts providing for their constitution, each area must contain a town or bazar, must be not a purely agricultural village, and must not have a population exceeding 10,000. The statistics relating to these areas are not included in the tables.

The following table shows the number of Notified Areas and their total income and expenditure in 1911-12 :—

	Number of Notified Areas.	Income.	Expenditure.
		Rs.	Rs.
Burma .. .. .	17	5,87,339	5,12,303
Punjab .. .. .	101	6,47,956	4,10,464
United Provinces .. .. .	45	4,12,383	2,97,397
Central Provinces and Berar ..	7	87,346	68,035
Bombay .. .. .	14	41,758	40,647
North-West Frontier Province ..	8	66,136	46,302
TOTAL ..	195	18,36,918	13,75,148

### LOCAL BOARDS.

The duties and functions assigned to the Municipalities in urban areas are assigned to the Boards in rural areas. These Boards operate under the sanction of the legislature (given in or about 1884), in every province except Burma. In each district there is a Board, subordinate to which are two or more local Boards, and in Bengal and Madras there are also Union Committees or *Panchayats*. There are in India 198 District Boards and 533 Local Boards subordinate to them. There are also 449 Union Committees, 393 in Madras and 56 in Bengal. The population of the tracts over which the Boards have jurisdiction was over 213 millions in 1911-12, according to the local reports. Excluding the Union Committees,



to which the elective principle has not been applied, the members of the Boards numbered 16,827 in 1911-12, of whom 5,793, being about 35 per cent. were elected. The others were either nominated or *ex-officio* members (8,438 of the former and 2,396 of the latter), and of these others the largest numbers in proportion to the total number of members, are on the North-West Frontier Province and the Madras Boards, the latter being far more largely worked by official agency than the Boards of other provinces. The elected members in Madras are to be found only on District Boards and number 690 out of a total membership for District and Local Boards of 5,998. In the North-West Frontier Provinces there has been no elected member since 1903-04, when the elective system of appointing members was abolished in that province. In the Central Provinces and the United Provinces elected members have a substantial majority.

The percentage of elected members of District and Local Boards in the whole number in the principal provinces is as follows:—

	per cent.
Central Provinces and Berar ..	71·7
United Provinces of Agra and Oudh..	69·3

The most important item of revenue is provincial rates, which represent a proportion varying from 40 per cent. in Madras to 55 per cent. in Bihar and Orissa of the total income of the Boards. The following table shows the percentage of each principal source of revenue in the chief provinces:—

	Provincial rates.	Police.	Education.	Civil Works.
Assam .. .. .	45·5	5·1	10	22·4
Bengal .. .. .	48·6	6·04	12·03	25·8
Bihar and Orissa .. .. .	55·01	4·9	8·4	24·02
United Provinces .. .. .	45·7	6·4	19·9	19·5
Punjab .. .. .	51·3	2	12·7	23·8
Bombay .. .. .	41·5	2·5	28·7	19·3
Madras .. .. .	40·5	...	4·04	34·9
GRAND TOTAL ..	44·9	3·7	13·1	25·7

**Expenditure.**—The expenditure of the Boards, omitting as in the case of revenue, all items classed under "Debt" was Rs. 496 lakhs as against Rs. 468 lakhs in the previous year. As in the previous year Rs. 264 lakhs were spent on the construction and maintenance of public works, such as roads and bridges. The other principal objects of expenditure were:—Education Rs. 116 lakhs; Medical Rs. 51 lakhs, chiefly on hospitals and dispensaries and vaccination. In Madras a considerable sum, amounting to nearly Rs. 9 lakhs, was spent as usual on sanitation, *i.e.*, on the improvement of water supplies and village-sites, conservancy, and similar purposes. The following table shows for each of the principal provinces what percentage of the total expenditure is devoted to each of the main heads:—

	Civil Works.	Education.	Medical.	Administration.
Bengal .. .. .	61·5	23·9	5·8	3·4
Bombay .. .. .	50·8	37·4	5·9	2·1
United Provinces .. .. .	47·8	31·4	12·7	2·7
Punjab .. .. .	41·0	24·4	10·9	3·3
Madras .. .. .	58·06	10·02	13·6	3·8
Assam .. .. .	50·2	30·6	12·3	2·3
Bihar and Orissa .. .. .	66·7	17·5	7·5	3·2

	per cent.
Assam .. .. .	55·7
Bombay .. .. .	44·4
Bengal .. .. .	41·9
Punjab .. .. .	40·6
Bihar and Orissa .. .. .	23·3
Madras .. .. .	11·5

The Boards are practically manned by Indians who constitute 93 per cent. of the whole, numbering 15,482 as compared with only 1,145 Europeans and Eurasians. Nearly twenty-four per cent. of the total number of members of all Boards were Government officials.

**Revenue.**—The total income of the Boards in 1911-12 amounted to Rs. 515 lakhs against Rs. 488 lakhs in the preceding year. The average income of each District Board together with its subordinate Local Boards was Rs. 2,60,171. The 10 Local Boards in Assam (where there are no District Boards) had an average income of Rs. 87,924. The Union Committees of Bengal had an average income of Rs. 536 each, and the Union *Panchayets* of Madras had an average income of Rs. 2,219.

## Calcutta Improvement Trust.

The Calcutta Improvement Trust was instituted by Government in January, 1912, the preamble of the Act by which it is founded running as follows:—"Whereas it is expedient to make provision for the improvement and expansion of Calcutta by opening up congested areas, laying out or altering streets, providing open spaces for purposes of ventilation or recreation, demolishing or constructing buildings, acquiring land for the said purposes and for the re-housing of persons of the poorer and working classes displaced by the execution of improvement schemes."

The origin of the Calcutta Improvement Trust must, as in the case of the corresponding Bombay body, upon which the Calcutta Trust was to a large extent modelled, be looked for in the medical enquiry which was instituted into the sanitary condition of the town in 1896, owing to the outbreak of plague. In consequence of the facts then brought to light, a Building Commission was appointed in April 1897, to consider what amendments were required in the law relating to buildings and streets in Calcutta. That Commission recommended certain alterations in the law, and further suggested that a scheme should be prepared for laying out those portions of the town which were sparsely covered with masonry. While unable to go into details, they recommended that in quarters newly laid out the roads and open spaces should occupy at least as much ground as the building areas. As regards existing evils, they thought that it was impossible to demolish any considerable portions of the City. All that could be done was to open out a number of wide streets and some open spaces. The Government of Bengal, when it proposed to give effect to the recommendations of the Commission, adopted, as the work to be done, a scheme for constructing and improving 15½ miles of roads which had been drawn up by the Commission. This scheme formed the basis of discussion till 1904, when a Conference was convened by Sir Andrew Fraser, then Lieutenant-Governor of Bengal. It was estimated that the Trust might in the ensuing 30 years have to provide for the housing of 225,000 persons, who would occupy 2,000 acres. The population of Calcutta proper, which includes all the most crowded areas, was 649,995 in 1891, and increased to 801,251, or by 25 per cent, by 1901. The corresponding figure according to the 1911 Census was 896,067.

The Conference of 1904 recognised that in view of the peculiar situation of Calcutta, which is shut in on one side by the Hooghly and on the other by the Salt Lakes, its extension in a regular zone is impossible. The Conference, after carefully considering the question, came to the conclusion that "arms" or "promontories" should be thrown out in five directions: on the north, north-east, east, south and south-east, and south-west. In these promontories it was easy to foresee that expansion would take place along the lines indicated by certain roads. It is for this reason that the Government of Bengal made the proposal that the Trust should have power to project roads to the outskirts of Calcutta.

It was seen that strips of land lying along or in the neighbourhood of these roads should be acquired by or for the Trust and would be dealt with by them as model areas. In the remaining part of the extension, according to the Government's plan, the Trust would have no proprietary rights over the land, but they would administer the building regulations and by this means would secure that all houses erected by private owners were constructed on a standard plan and in conformity with sanitary requirements.

### Legislation.

The recommendations of the 1904 Conference eventually took legislative form in a Bill introduced in the Bengal Legislative Council in August, 1910. This measure was built up on the recognition by the Government that the 15 miles road scheme only touched the fringe of the question of overcrowding and sanitation. The Bill, therefore, provided for a scheme of greatly enlarged scope. The amount of money required was roughly estimated at Rs. 8,22,00,000. It was recognised that a great deal more could be spent with advantage, and the figure was not put forward as representing the actual cost of any definite scheme, but as a rough estimate of what would be required for any scheme of wide and permanent utility. The total sum was divided into Rs. 500 lakhs for new roads, Rs. 172 lakhs for open spaces and Rs. 150 lakhs for housing and expansion. Of these sums Rs. 336 lakhs were to be recovered by recoupment, 50 lakhs were granted from Imperial revenues, and the remainder was left to be raised by loans. The sanction of the Secretary of State was obtained for the proposals generally on the understanding that the scheme of taxation would be for 60 years. The Legislative enactment, while based on these calculations, does not actually refer to any limit of expenditure. But the Act provides a special system of taxation for the service of the loans, amounting to Rs. 436 lakhs, involved in the scheme. For this service an annual revenue of 19·65 lakhs was required and to this have to be added 1·25 lakhs for working expenses and contingencies, bringing the total up to 20·90 lakhs. To provide this revenue the Act provides for the levy of special taxes as follows:—

1. A two per cent. stamp duty on the value of all immovable property transferred by sale, gift or reversion of mortgage;
2. A terminal tax of one anna on every passenger by rail or steamer arriving in the city of Calcutta; this is not to be levied on passengers from within a radius of 30 miles of Calcutta;
3. A customs and excise duty, not exceeding two annas per bale of 400 lbs., on raw jute;
4. A two per cent. consolidated Corporation rate; and
5. An annual Government grant of a lakh and a half.

The Act provides for the appointment of a whole time chairman of the trustees and the membership of the Trust was fixed at eleven,

part of the members being nominated by Government and others elected by local bodies whose interests are most nearly concerned.

It was impossible to settle in advance the exact projects to be undertaken by the Trust. All details of these were, therefore, left to be worked out by the Trust after its constitution, Government exercising control by having all the individual schemes sent to them for approval before execution. The Trust did not enter on a virgin field. The Municipal Corporation had previously dealt in some measure with the problems; they were appointed to solve and the Trust started work with the initial benefit of this previous labour. Thus, the Corporation had aligned many roads and this work was useful to the Trust, though in some cases modifications were necessary.

### Population and Traffic.

The work upon which the Trust are now definitely embarked may be divided into three classes as follows:—

Many parts of Calcutta are over-crowded with buildings and ill-provided with roads. These areas are to be re-arranged both on the ground of sanitation and for convenience of traffic;

Population will continue to throng into the over-crowded parts unless it can live on the outskirts and at the same time have speedy access to the business centres of the town. Quick traffic can only take place along broad roads. These are almost wanting in Calcutta. The construction of broad roads will at the same time ventilate the overcrowded parts of the town and it has been recognised from the outset that the construction of broad roads running both north and south and east and west will thus secure a double object;

There is the question of providing for the population displaced by improvements, and still more important of providing for the natural growth of population by laying-out roads and building sites on sparsely populated areas on the outskirts of the town. When persons of the working class are displaced or likely to be displaced the Trust can build dwellings for them if private enterprise does not undertake the work.

The Trust perceived at once that the problem of providing improved traffic facilities for Calcutta and its suburbs must be dealt with as a single problem and by a single mind. The first duty set by the Trust to their chief engineer was, therefore, to prepare a scheme of main roads of primary importance. The chief engineer devoted his whole attention to this task and when the annual report of the Trust for 1913 was issued his report was still awaited. The engineer submitted early last year an interesting report on the widening of Howrah Bridge. Meanwhile, the Board undertook certain improved schemes which would not be interfered with by any larger schemes adopted later. The Board also embarked on a re-housing scheme with a view to provide accommodation for persons likely to be displaced by the improved schemes under preparation. The buildings designed resemble those erected by the Bombay Improvement Trust. The scheme was sanctioned by Government in August, 1912, but its execution has proved more expensive than was anticipated, mainly owing to the rise in the price of building materials. The final estimate of cost is Rs. 2,22,000. The following paragraph from the Calcutta Improvement Trust's last annual report shows the standard according to which they regard their re-housing plans:—

"The housing problem in Calcutta is of supreme importance; the figures of the last census show that much of the improvement in the health of Calcutta is only apparent; the sanitary measures of the Corporation result in the removal of bustees and the population which occupied the bustees does not find healthier accommodation in the same locality but moves on to even more insanitary bustees in the suburban wards or in the adjacent suburban municipalities. The Board do not anticipate, nor do they desire, that the chawl should become the usual dwelling for the poor of Calcutta, but it may be suitable to some classes of its heterogeneous population, and especially to those who come here for work, leaving their families behind. It is very difficult to see what other class of building can be erected by the capitalist where land costs more than Rs. 600 a cotta. On really cheap land it is possible that good results could be obtained by arranging for the construction of sanitary bustees, the Board merely laying-out and draining the site and controlling the class of hut erected."

### BOMBAY IMPROVEMENT TRUST.

Bombay is an island twelve miles long, but very narrow and containing only 22 square miles altogether, but in the city, occupying little more than half the island, there lives a population enumerated at 972,892 and actually totalling over a million. Bombay is, in point of population, the second city of the British empire. Seventy-six per cent. of its million people live in one-roomed tenements. Imagine the terrible conditions of overcrowding and lack of sanitation which these facts imply and you have the reason why the severe onset of plague seventeen years ago led to the formation of the Improvement Trust, for the special

purpose of ameliorating the sanitary condition of the city. Plague was imported into India from the Far East and was first discovered in Bombay in 1896. There was a great panic among the population. Every house had its victims, most persons attacked died. There was a general flight of the population to the country districts. It is estimated that nearly half a million so fled. Grass grew in the principal streets. These circumstances directed the attention of the authorities, as nothing else could have done, to the problem of bringing the development and housing arrangements of the city into line with modern requirements.

It was at once recognised that the task was too great for the Municipality, and a special body, termed the Trustees for the Improvement of the City of Bombay, was appointed. It consists of 14 members, of whom four are elected by the Municipality and one each by the Chamber of Commerce, the Millowners' Association and the Port Trust, and the balance nominated by Government, or sit *ex-officio* as officers of Government. The Board is presided over by a whole-time chairman, who is either a covenanted civilian or an officer of the Public Works Department, and he is also head of the executive. The present chairman and members of the Trust are as follow:—

**Chairman—**

The Hon. Mr. J. P. Orr, C.S.I., I.C.S., J.P.

**Ex-officio Trustees—**

Major-General G. F. Gorrington, C.M.G., C.B., D.S.O., General Officer Commanding Bombay District.

Mr. E. L. Sale, I.C.S., J.P., Collector of Bombay.

Mr. H. B. Clayton, I.C.S., J.P., Acting Municipal Commissioner.

**Elected by the Corporation—**

Sir Bhalchandra Krishna Bhatawadekar, Kt., L.M., J.P.

Mr. Dinsha Edulji Wacha, J.P.

The Hon'ble Sir Ibrahim Rahimtoola, Kt., C.I.E., J.P.

Mr. Nowroji Jehangir Gamudia, J.P.

**Elected by the Chamber of Commerce—**

Major, I.O. A. L. Hepper, R.E., J.P.

**Elected by the Port Trustees—**

The Hon'ble, Mr. F. L. Sprott, J.P.

**Elected by the Millowners' Association—**

Sir Sassoon David, Bart., J.P.

**Nominated by Government—**

Sir Vithaldas D. Thackersey, Kt., J.P.

Mr. A. M. Tod, J.P.

Mr. A. H. Whyte, J.P., Executive Engineer, Presidency.

The specific duties of the Trust are to construct new streets, open out crowded localities, reclaim lands from the sea to provide room for expansion, and construct sanitary dwellings for the poor.

**The Sanitary Problem.**

Bombay city grew on haphazard lines, houses being added as population poured in with the growth of trade and without any regard to town planning or the sanitary requirements of a great town. The price of land was always comparatively high, owing to the small area of the island, and while the builder had only one object in view, namely, to collect as many rent paying tenants as possible on the smallest possible piece of land, there were no proper restraints to compel him to observe the most ordinary rules of hygiene. The result was the erection of great houses, sometimes five and six storeys high, constituting mere nests of rooms. There was no adequate restriction as to the height of these chawls, or the provision of surrounding open space, so that the elementary rules as to the admission of light and air went unobserved and the house builder invariably erected a building extending right up to the margins of his site. Consequently, great houses ac-

commodating from a few hundred to as many as four thousand tenants were built with no more than two or three feet between any two of them and with hundreds of rooms having no opening at all into the outer air.

The Trust has practically reconstructed large areas on modern sanitary lines, but unfortunately the old municipal by-laws remain quite inadequate for the requirements of the city and while the Trust are spending millions sterling of public money in sweeping away abuses, unscrupulous landlords are still unchecked in adding in the same old manner to the insanitary conditions of the place. Thus, the Trust acquire and destroy insanitary houses on a certain area and lease the sites and permit new houses to be built on them subject to the reservation of a certain breadth of open ground round the edges of the site to provide for the necessary angle of light and air for the lower rooms of the new building. But bordering on this area there will be old houses that were not acquired as part of the improvement scheme and the municipal by-laws allow the owners of these to increase their height by as many storeys as they like, without regard to the fact that they are thus undoing the very work of providing for the admission of light and air upon which the Trust have just poured out money. The private landlords take the fullest advantage of the loophole. The amendment of the Municipal by-laws so as to cure such abuses has been under discussion by the Municipal Corporation for many years.

**Finance.**

The work with which the Trust was charged was bound to prove unremunerative, with the exception of reclamations from the sea, and at the outset, therefore, certain Government and Municipal lands were vested in the Trust, the usufruct of which it enjoys, and the Trust at the outset received a contribution from municipal revenues not exceeding 2 per cent. on the rateable value of the property assessed for taxation. In practice, the works are financed out of 4 per cent. loans, which are guaranteed by the Municipality and the Government, and the revenue of the Trust is used to meet interest and sinking fund charges. Two years ago, the Trust, proceeding on these lines, found itself at the end of its resources. When the Trust was constituted it was estimated that the usufruct on the public land vested in it would represent a contribution of Rs. 98,00,000 (£840,000) from the general taxpayer. But in practice this was reduced to less than Rs. 43,00,000 (£286,666). The Trust found itself with unpledged resources estimated at only Rs. 18,00,000 (£108,666.) The Government of India came to its assistance with a cash grant of half a crore of rupees (£333,000), given out of a budget surplus, special legislation was carried through the Bombay Legislative Council in 1913 to increase the advantage of the Trust from Provincial and Municipal appropriations, and legislative measures are now in progress to enable the Trust to raise money by special local taxation in Bombay. The cautious estimate of Rs. 18,00,000 also proves to have been below the mark.

The following are some details of the Bill to amend the City of Bombay Improvement Act, which, as just mentioned, was passed by the Provincial Legislature. The main object of the Bill was to simplify the financial arrangements between the Government, the Municipality and the Trust and make them more favourable to both the local bodies. Under the old Act, as already mentioned, the annual Municipal contribution to the Trust was an indefinite sum limited by a maximum of 2 per cent. on the Municipal assessments of the year. Under the Amended Act the Municipal contribution is a definite share of the year's general tax receipts, approximating to 2 per cent. on assessments and subject to no maximum, and the Trust keep their profits for their own use. Under the original Act, the Trust had from 1909 onwards to pay to Government and the Municipality 3 per cent. per annum as interest on the schedule value of the Government and Municipal lands vested in them, while Government and the Municipality were at liberty to resume any unleased, vested lands for public purposes without paying compensation, except in respect of capital spent by the Trust in improving them. Under the amended Act the Trust have no interest to pay, and Government and the Municipality must, on resuming vested lands, pay the Trust their full market value. There are other modifications of the old arrangements, similarly making for the financial benefit of the Trust. The new Act makes the Municipality the reversioners of the Trust's assets and liabilities. Apart from finance, the new Act contains important new sections under which the Trust are empowered to co-operate with employers of labour for the housing of the working classes by constructing chawls for their employes and leasing them to the employers at a rent calculated so as to yield to the Trust in the course of the 33 years of the lease the capital sum spent in the scheme, plus 4 per cent. interest, the chawls then becoming the property of the employers. The Trust are now negotiating with several millowners for schemes under these sections; and some important schemes have been prepared.

### Plan of operations.

The work of the Trust, so far as it has gone or is planned, can be divided into two parts. The first concerned the immediate alleviation of the worst burdens of insanitation and the second consists of opening up new residential areas. The Trust began by attacking the most insanitary areas. Two broad roads, running due east and west, were cut through the worst parts of the city, sweeping away a mass of insanitary property and admitting the healthy westerly breezes to the most crowded parts of it. These thoroughfares are known as Sandhurst-road and Princess-street. They are as yet hardly completed, but the greater parts of them are already settled under the new conditions, with sites on both sides of them disposed of on long leases and many new buildings built and occupied. Meanwhile, large areas of good building land, lying idle for want of development works, have been developed and brought on the market,

sold at remunerative rates and largely built upon. An instance of this development is the Chaupati estate, the land overhung by Malabar Hill, between it and the native city. This was cut up with fine new roads and is now nearly covered with modern suburban dwellings. Two of the most insanitary quarters in the midst of the city have been levelled to the ground and rebuilt in accordance with hygienic principles. Sanitary chawls have been built for nearly 20,000 persons. So much for the first phase of the Trust's labours.

The second phase, arising gradually out of the first and advancing along with its later stages, consists of the development of a new suburban area in the north of the island, beyond the present city, and the construction of great arterial thoroughfares traversing the island from north to south. The latter undertakings were originally known as the Eastern and Western Avenue schemes, but the cost of land is rising so rapidly throughout the city, and the expense of new works is accordingly growing so heavy, that the Western Avenue has had practically to be abandoned and modified improvements of existing highways from south to north, on the western side of the city, substituted for it. The Eastern Avenue will run from the back of Crawford Market, the northernmost limit of the modern commercial city, directly north to Laibagh, near the entrance road to old Government House, Parel, and have a width varying from 100 to 120 feet. It is divided into three sections. The first, starting from Crawford Market and reaching to Pydhonie, is already in the hands of the engineers for execution. The second, for which Parel-road will be widened, is awaiting the passage of the new legislation enabling the Trust to raise additional funds. The third and northernmost portion is under construction.

Beyond the northern end of the Eastern Avenue, the north-east portion of the island, extending some three miles, consisted until recently of swampy rice lands, interspersed with bits of jungle and small hills and a few building areas. The Trust have acquired the whole area. A broad thoroughfare has been laid through the centre of it, with other roads connecting the outlying parts with the central road and with the railway stations. Some of the hills have been levelled and the material from them used to fill the low-lying parts of the estate. Development has reached the stage of readiness for building in the half of the scheme nearest the city, and the Trust are now devoting their attention to facilitating private enterprise in this direction. The suburb will probably become largely residential for people whose daily pursuits take them to the southern city, but its chief use will be for those whose avocations employ them in the large new port extension which the Port Trust are carrying out at the north of the present port and where the new cotton green and grain yards will be situated. The Port Trust have reclaimed 596 acres of land from the north of the harbour, at a cost of £1,833,333, and the whole of the export trade of the port will be concentrated in this new area and in that adjoining it, at Mazagaon and Sewri.

**Statistics.**

The following are some statistical details of the progress of the Trust's operations. By the end of 1912-13 the Board had raised Rs. 475 lakhs by loans and their total capital receipts, including 50 lakhs received from the Government of India in 1911, amounted to Rs. 540 lakhs, out of which they had spent 29 lakhs on improvement of Government and Municipal lands temporarily vested in them, Rs. 456 lakhs on their own acquired estates and 3 lakhs on their office building. The following table shows the extent of the development operations carried out by the Trust up to the end of the official year 1912-13.—

	Sq. yards in thousands.
• Developed Land.	
Permanently leased .. ..	569.28
Chawl sites .. ..	69.7
Yet to be permanently leased ..	337.26
Remainder roads, open spaces, etc. .. ..	465.19
Total .. ..	1,441.43

Rent of permanently leased area .. ..	Rs. 9.23 lakhs.
Area of undeveloped land in thousands of square yards .. ..	5,298.1
Cost of acquisition .. ..	Rs. 436 lakhs.

The disposal of plots on the Trust's newly developed estates is now progressing at a favourable rate. Practice shows that for obvious reasons the disposal of plots proceeds most slowly when an estate first becomes available for leasing to the public. When the first plots have been taken up and house building begins to assume definite proportions the remaining sites pass off without difficulty. The total plots disposed of during the last official year (1912-13) was well above normal, both as regards area and value. Taking all previous years into account the number of plots disposed of in 1912-13 (82) was easily a record, the previous best being the 59 of 1910-11. The total area (109,409 square yards) disposed of in 1912-13 beat the previous best (69,396 square yards in 1909-10) by 57 per cent, while the annual rental derivable from the year's transactions, viz., Rs. 1,62,337, was second only to that of the year 1906-07, viz. Rs. 1,75,400. Great progress was made in 1912-13 in Sandhurst Road, where 36 plots were leased, having an area of 22,938 square yards and a value of Rs. 13,11,000. The highest price per square yard realised in 1912-13 was obtained for two plots opposite Crawford Market on the Princess Street Estate which were let on a basis of Rs. 652 per square yard which is second only to the rate of Rs. 730 per square yard (£236,000 per acre) obtained for the adjacent plot in 1911-12.

By the beginning of 1912-13 completion certificates had been issued for 257 buildings on the Trust Estate, exclusive of Police chawls and Trust chawls. In 1912-13 certificates were granted for 31 new buildings and at the end of the year completion certificates remained to be granted for 119 more buildings in progress, of which 49 were partly occupied, while there

were 57 leased plots on which the projected buildings had not yet been commenced.

**The Working Classes.**

The average total population in the Trust chawls was 17,266 in 1912-13. The total rent of the 4,312 rooms in Trust's chawls at the maximum rates works out to Rs. 2,30,856 per annum, but, owing to the maximum not being charged in the early part of 1912-13 in some chawls, the maximum for 1912-13 was Rs. 2,20,225. The percentage of outgoings to gross chawl revenue is found to be approximately 32½ per cent., this proportion being higher than in the case of private chawls mainly because private owners spend far less than the Board on the sanitation of their chawls. On the basis of the maximum annual rent of Rs. 2,30,856 and outgoings at 32½ per cent., the net annual income works out to 67½ per cent. of Rs. 2,30,856, i.e., Rs. 1,55,828, i.e., 4.54 per cent. on the cost of chawls (including value of land) amounting to Rs. 34,31,794 on which the Board pay annual Interest and Sinking Fund charges at 4.61 per cent. amounting to Rs. 1,58,206. Thus when the maximum rent is reached, the Board will be involved in an annual loss of Rs. 2,378 only on the existing chawls. The maximum population of the chawls is 15,000 adults. The annual loss thus comes to annas two and pies six per head of the maximum adult population of the chawls.

With the one exception of the old Nagpada chawls where there are special conditions the death rate in the Trust's permanent chawls has always been considerably below the general death rate in the vicinity. The smallest one-room tenement on the Trust Estate is large enough for a family of five.

**A New Method.**

A further development of method in dealing with insanitary areas is now in prospect. It has already been recognised that estimates on the old wholesale demolition lines would be prohibitively expensive for the large "represented" areas remaining to be dealt with, owing to the constantly increasing cost of property and work, and could benefit only small areas surrounded by larger areas in which insanitary conditions are always going from bad to worse with the extension of building operations, under the lax Municipal by-laws already referred to. It is recognised that what is wanted is some general scheme of improvement that can be applied all over the city and some means of putting an immediate check to the spread of further insanitary evils through the weakness of the by-laws, especially in relation to the lighting and ventilation of one-roomed tenements. The Trust officers have devoted much time to studying this question and the chairman some time ago propounded a scheme by which all inadequately lighted and ventilated rooms in Bombay might be closed gradually and house-owners required, with some assistance from public funds, to reconstruct their houses, so that all rooms in them used for dwellings might have sufficient light and air. The scheme attracted the attention of Government, who appointed a representative committee to consider the new plan. This committee is now sitting.

## The Indian Ports.

The administration of the affairs of the larger ports (*Calcutta, Bombay, Madras, Karachi, Rangoon and Chittagong*) is vested by law in bodies specially constituted for the purpose. They have wide powers, but their proceedings are subject in a greater degree than those of municipal bodies to the control of Government. Except in Calcutta, the elected members are fewer in number than the nominated members. At all the ports the European members constitute the majority and the Board for Rangoon consists wholly of European members.

The income and expenditure of the six ports managed by Trusts (Aden is excluded from the tables) amounted last year to Rs. 619.85 lakhs against Rs. 593.07 lakhs in 1910-11, of which 70 per cent. stands against Calcutta and Bombay,

this proportion corresponding fairly to the proportion of the maritime trade which centres in those two ports. Both income and expenditure have increased in the case of Calcutta in the ten years ending 1911-12 (excepting a small set-back in income in the year 1909-10) at a far more rapid rate than in the case of other ports, the increase being due partly to expansion of trade and partly to the additional expenditure entailed by the construction of the docks and the imposition of additional charges to meet that expenditure.

The capital debt of the Trusts at the end of 1911-12 was about Rs. 2,192 lakhs, against Rs. 2,396.7 lakhs in 1910-11, of which nearly 78 per cent. represented the debt of Calcutta and Bombay.

### CALCUTTA.

The Commissioners for the Port of Calcutta are as follows:—

*Appointed by Government.* The Hon'ble Mr. D. J. Macpherson, C.I.F., I.C.S., Chairman

*Elected by the Bengal Chamber of Commerce.*—Messrs. C. E. Beadel, (Becker Gray & Co.), A. Topping, (Macneill & Co.), E. H. Bray, (Gillanders Arbuthnot & Co.), W. E. Cunn, (Graham & Co.), C. J. Kerr, (Mackinnon, Mackenzie & Co.), and the Hon'ble Mr. J. C. Shorrock, (George Henderson & Co.)

*Elected by the Calcutta Trades Association.*—Mr. W. T. Gilce, (Smith Stanstreet & Co.)

*Elected by the Bengal National Chamber of Commerce.*—Babu Amulya Dhan Addy.

*Elected by the Corporation of Calcutta.*—The Hon'ble Raja Reshee Chandra Law (Pran Kishore Law & Co.), Dr. Haridhan Dutt.

*Nominated by Government.*—Messrs. C. A. Radice, I.C.S., (Magistrate of Howrah), G. C. Godfrey, (Agent, Bengal Nagpur Railway), R. S. Higbet, (Agent, East Indian Railway), H. F. Howard, I.C.S., (Collector of Customs), and Captain G. S. Hewitt, R.N.M., Deputy Director Royal Indian Marine, *ex Officio*.

The principal Officers of the Trust are:—

*Secretary.*—Mr. H. J. Hilary B.A.

*Assistant Secretary.*—Mr. T. H. Filderton, B.A.

*Chief Engineer.*—Mr. J. Scott, M. Inst. C.E.

*Consulting Engineer and London Agent.*—Mr. J. A. Angus, M. Inst. C.E.

The income of the Trust in 1912-13 amounted to Rs. 1,42,46,317 and exceeded that of 1911-12, the previous highest record, by Rs. 6,55,909. The tonnage of goods handled at the jetties was 966,000 and exceeded that of 1911-12, the previous highest, by 70,500 tons. At the wet docks the total import and export traffic exceeded 5 million tons, exports of coal rising to 2,153,404 tons. With the steady growth of trade and shipping at the port, the Port

Commissioners' income has expanded as follows during the last decade:—

Year.	Income.
	Rs.
1903-04 ..	79,65,376
1904-05 ..	88,86,726
1905-06 ..	89,55,395
1906-07 ..	1,00,08,736
1907-08 ..	1,09,57,142
1908-09 ..	1,20,16,630
1909-10 ..	1,18,36,518
1910-11 ..	1,28,24,171
1911-12 ..	1,35,00,408
1912-13 ..	1,42,46,317

The figures of income do not however indicate fully the expansion that has taken place in the operations of the Trust, because since the year 1902-03 the Commissioners have reduced the rates and charges to an extent which, on the traffic of the present time, represents an annual relief of no less than Rs. 15½ lakhs to the trade and shipping of the port, and the cumulative effect of the reductions made has amounted to more than Rs. 103 lakhs during the period mentioned.

The expenditure during the last official year amounted to Rs. 1,47,00,313, but this total includes payments amounting to Rs. 1,54,049 which properly appertain to previous years. Excluding these items, which are not correctly chargeable to the expenditure of the year under review, there was a net deficit on the year's work of Rs. 2,99,950.

Various considerable improvements for the expansion of the port have recently been carried out to provide for the growth of trade. An important project recently undertaken was one for the lighting of the lower reaches of the Hughli with a view to their navigation by night. Government sanctioned a scheme to this end, and the works were put in hand. Considerable progress has been made with a new scheme for the extension of the docks. The general plan of the lay-out of the property, with the new dock extension and railway connections was matured and adopted by the Commissioners as the basis of these extensions. A special committee was appointed in England

to visit and inspect British and Continental ports with a view to advising the Commissioners in the light of the latest experience there on various points connected with the new works. In the meantime the design for five riverside berths in Garden Reach, the construction of which will proceed concurrently with the dock entrance, was determined upon and specifications prepared and tenders taken.

But these undertakings only belong to the outskirts of the main problem. The remedial measures of the Port Trust have proved beneficial, but they are insufficient to meet the ever-increasing requirements of trade. The question of the congestion at the Calcutta jetties, owing to insufficient accommodation and the absence of adequate transport facilities for the present volume of trade, has been engaging the attention of Government for some considerable time past. There has been a very great expansion of the trade of the port and a large increase in the number and tonnage of vessels entering it, and the lack of sufficient accommodation has resulted in serious delays to vessels and consequent loss, chiefly arising from the inadequacy of facilities for the discharge of cargo at the jetties.

There has been much discussion of the problem between Government, the Port Trust and the Bengal Chamber of Commerce and others concerned, and the Government of Bengal, in December, 1913, appointed a Committee to investigate the important questions represented by the problem of the future development of the port. The Committee consists of the Hon. Sir William Duke, Chairman; Sir Henry Burt, the Hon. Mr. A. M. Montagu, the Hon. Mr. J. C. Shorrocks, the Hon. Raja Hrishikesh Leka, Mr. A. G. Lytton, and Mr. H. F. Howard, members and Mr. R. N. Reid, I.C.S., Secretary. The Committee is empowered to—

(1) examine the existing traffic and port

facilities in Calcutta and its immediate neighbourhood;

- (2) investigate the present and future requirements of the trade of Calcutta, and
- (3) determine the extent to which the various transport agencies shall provide new works and other facilities in order that these requirements may be fully met for as long a period as it is reasonable to prepare a forecast.

The Bengal Government, in an explanatory announcement, agree "that the subject for consideration is one of wider range than an enquiry into the facilities afforded to the import trade at the jetties, and that it concerns rather the question whether proper facilities of all kinds are being provided to enable the port and railway authorities to deal promptly and adequately with the rapidly-expanding trade of Calcutta in accordance with a well-defined and carefully-thought-out policy. There are several projects for improving transport facilities and the railway and other approaches to the port, which have been prepared at various times and which are now under consideration, such as the provision of railway bridge over the Hughli at Panhati, the expansion of the docks, the provision of new coaling berths on the Howrah side of the Hughli, the Grand Trunk Canal Project, the removal of the Hatkhola jute mart and additions to the jetties. These projects are of the first importance and involve enormous expenditure and they should, it is rightly held, be examined and co-ordinated by a committee whose duty it would be to make an exhaustive enquiry into the requirements of the trade of the port and the means by which these requirements could be met."

The capital debt of the Port at the end of the last financial year was Rs. 8,74,21,287. The total assets amounted to Rs. 11,37,37,911.

## BOMBAY.

The Board of Trustees of the Port of Bombay is constituted of 16 members, as follows:—

*Appointed by Government.*—The Hon'ble Mr. F. L. Sprott (Chairman), Mr. Navioli Jehangir Gamadia, Mr. Mahomedbhoy Currimbhoy, Ebrahim (Currimbhoy, Ebrahim & Co.), Captain W. Lumsden, C.V.O., R.N. (Director of the Royal Indian Marine), Major A. D. G. Shelley, R.E. (Agent, B. B. & C. I. Railway), Mr. R. F. J. Whitty (Collector of Customs, Bombay), Major H. A. Hepper, R.E. (Agent, G. I. P. Ry.), Sir Sassoon David Bart. (Sassoon & Co.), J. David & Co.), and Mr. H. W. Clayton, I.C.S. (Municipal Commissioner, Bombay).

*Elected by the Chamber of Commerce.*—The Hon'ble Sir Henry E. E. Procter, Kt. (Killick, Nixon & Co.), The Hon'ble Sir Charles H. Armstrong, Kt. (Lyon, Lord & Co.), Mr. H. R. Greaves (Greaves, Cotton & Co.), The Hon'ble Mr. W. L. Graham (W. & A. Graham & Co.) and Mr. A. H. Froom (Peninsular and Oriental Steam Navigation Co., Ltd.).

*Elected by the Native Piece-goods Merchants' Association.*—Mr. Devidas Madhooji Thackersey (Madhooji Thackersey & Co.).

*Elected by the Millowners' Association.*—Sir Vithaldas D. Thackersey, Kt. (Thackersey, Mooljee & Co.).

The following are the principal officers of the Trust:—

*Secretary.*—Mr. H. E. Hault.

*Chief Engineer.*—Messrs. P. G. Messent, M. Inst. C.E., L. H. Savile, A.M. Inst. C.E. (Deputy Engineer, New Docks Works), C. Anderson (Mechanical Superintendent).

*Port Officer.*—Commander St. L. S. Warden, R.N. M.

The revenue of the Trust in 1912-13 amounted to Rs. 88,88,073. This is the highest on record in the history of the port, and in excess of the previous highest figure; that for 1910-11, by over three lakhs. The expenditure from revenue was Rs. 77,23,708, leaving a surplus of Rs. 11,61,364 available for transfer to the Revenue Reserve Fund. This fund was thus brought up to Rs. 90 lakhs. (Its purpose is to meet the special outgoings of the Trust after the completion of the Alexandra Dock and the aim of the Trust is to continue its augmentation from surplus revenue until a total of Rs. 110 lakhs is reached). On capital



account the expenditure during the year amounted to Rs. 97,96,661, of which Rs. 91,19,412 was spent upon new large works—Alexandra Dock and Hughes Dry Dock and the Mazagaon-Sewri port extension reclamation. The total debt of the Trust at the end of the year amounted to Rs. 12,16,87,273.

The total trade of Bombay port during the last official year was Rs. 21½ crores, an increase compared with the previous year of Rs. 4½ crores or 2·29 per cent. The number of steam and square rigged vessels which entered the docks or were berthed at the harbour walls and paid dues, excluding those which remained for unloading and loading in the harbour stream during recent years, including last year, is shown by the following statement:—

Year.	Number.	Tonnage.
1906-07 .. ..	1476 ..	2,690,406
1907-08 .. ..	1477 ..	2,678,345
1908-09 .. ..	1474 ..	2,633,303
1909-10 .. ..	1611 ..	2,747,779
1910-11 .. ..	1589 ..	2,866,623
1911-12 .. ..	1519 ..	2,767,913
1912-13 .. ..	1566 ..	2,926,506

### Bombay Port Extension.

The Bombay Port Trust have in course of construction and approaching completion important new development schemes, which will add greatly to the facilities of the port. Foremost amongst these works comes the Alexandra Dock, the equipment of which will have no superior in the world.

The starting point of the modern port of Bombay was the year 1862, when the Elphinstone Land and Press Company, which had already done useful development work, entered into a contract with Government to provide a hundred acres for the terminus of the Great Indian Peninsula Railway, receiving in return the right to reclaim from the sea for its own advantage two hundred and fifty acres fronting the properties it had already acquired. The Company brought its estate into bearing with rare enterprise.

Doubts were felt subsequently of the wisdom of conferring upon a private corporation such an enormous monopoly as the control of the harbour front. These were resolved in 1869 by the decision to buy out the company and vest its properties in a public trust. The estate passed into the possession of the Government in 1869, the purchase price being approximately two millions sterling, and after being managed by a department of Government in the interregnum, the property passed to the newly constituted Port Trust in June, 1873.

Government purchased in 1879, on behalf of the Trust, the private foreshore owners' rights, at a cost of Rs. 75 lakhs, and at the same time reconstituted the Trust on a basis on which it has worked exceedingly well until the present day. The late King Emperor Edward VII, during his visit to Bombay in 1875, laid the foundation stone of the first large dock, which has since been known as Prince's Dock. This was opened in 1880, and thenceforward the financial difficulties hitherto experienced by the Port Trust disappeared. The construction of the Victoria Dock followed and recent years have provided

an unbroken succession of surplus receipts into the treasury of the Port. Out of these profits charges on trade have been reduced wherever they pressed and the financial position of the Trust has greatly been strengthened by the building up of a large revenue, by the institution of sinking funds for the repayment of the whole of the existing debt and by liberal appropriations to depreciation accounts.

The trade of the port rapidly outgrew the accommodation provided at Prince's and Victoria Docks. The developments now in progress are the result and are estimated to provide for the requirements of the Port for another 20 years, or longer. The new schemes may be divided into four heads:

(a) The construction of the Alexandra Dock, of which His Majesty The King Emperor laid the foundation stone during his visit to Bombay as Prince of Wales in 1905;

(b) The reclamation for the development of Port facilities of 583 acres, with a wharf frontage 2½ miles in length—an addition of some 4½ per cent. to the area of the city—at Mazagaon and Sewri, beyond the present Docks at the extreme north of the harbour;

(c) The building of a new railway leading from the main lines of the G. I. P. and B. B. & C. I., outside the city, to the Docks, in order to provide for more expeditious handling of heavy railborne traffic; and

(d) The construction of a complete bulk oil installation at Sewri, at the north of the docks, with a deep-water pier.

The total estimated cost of the new dock and its equipment is Rs. 5,86,43,570, or, say, £3,909,571; cost of the Port Trust Railway over 64 lakhs (£426,666); of the bulk oil installation, 22½ lakhs (£147,500); and of the reclamation and contingent works, Rs. 388 lakhs, or, say, £2,586,666.

The contract for the Alexandra Dock was given to Messrs. Price, Wills & Reeves in 1903. The dock will be oblong in shape, with the two bays at the north end. The total area of the wet basin is 49·52 acres, the length of quays, including the harbour wall, nearly three miles. There are 17 berths 500 ft. in length. These berths will be equipped with hydraulic cranes and transit shed accommodation varying from 3-storeyed sheds 400 ft. long by 120 ft. wide, to single storeyed sheds 400 ft. long by 100 ft. wide. Railway sidings run between the quay and the sheds, also behind the sheds. On the harbour wall there is a quay 3,000 ft. long, equipped with hydraulic cranes and transit sheds. The north end of this quay is intended for a troopship berth. Hydraulic power will be used for working the cranes, dock gate, machinery, transit shed lifts, capstans, etc. A floating crane to lift 100 tons will be part of the equipment of the dock. The dock entrance is through a lock on the south-west, parallel to which runs the new dry dock, a thousand feet long, a hundred feet wide, and with a sill thirty-four and a quarter feet below high water ordinary neap tides.

Outside the dock, beyond the entrance lock, runs the new mole, a continuation of the south-west wall, alongside which ocean steamers may embark and disembark their passengers direct from the shore, thus dispensing with the tiresome interposition of the tender. In the

immediate vicinity of the landing pier, a Customs house, refreshment and waiting rooms, post and telegraph offices and every facility the traveller can require are to be provided.

The small Carnac basin, immediately north of the new dock and formerly used by country craft, has been filled in, thus enabling a canal to be cut from the northern extremity of Alexandra Dock, and extending to Victoria Dock. The width of the canal will be 80 ft. Four berths will be provided to permit ships to lie at the wharves on either bank. The waterway will enable ships to be taken into any part of the Bombay dock area through the Alexandra Dock entrance. This will probably lead to the closing of the old dock entrances, with the result that ships will be saved much intricate handling and the Port Trust will be relieved of the necessity of expensive dredging operations.

The railway sidings and series of transit sheds in the new dock have been planned according to the most modern principles of

dock management. It is arranged that the dock will be opened by H. E. the Viceroy in March. Preparations for the ceremony were in progress at the end of 1913 and it was anticipated that seven or eight berths for ships would be ready by the time of the ceremony.

The Sewri reclamation will chiefly be utilised for the accommodation of the export trade of cotton, grain and seeds, which form the largest item in the traffic of the port. The existing cotton green—or market—is situated at Colaba, at the extreme southern end of the port and has long been greatly overcrowded, besides encumbering that end of the port. The new cotton green and godowns on the reclamation will cover about 166 acres, with 182½ acres available for future extension. The present greens and godowns at Colaba occupy 50 acres. Unloading sidings with accommodation for 700 wagons are to be provided, in addition to ample running lines, as compared with sidings to hold 154 wagons at Colaba at present.

### KARACHI.

The Members of the Board of Trustees of the Port of Karachi, are as follows, being seventeen in number:—

*Chairman.*—Mr. H. C. Mules, C.S.I., M.V.O.

*Vice-Chairman.*—Mr. F. S. Punnett.

*Appointed by Government.*—Mr. H. C. Sparke, Major W. E. R. Dickson, R.E., Mr. T. J. Stephen (The National Bank of India, Ltd.), Mr. W. U. Nicholas (Anderson & Co.).

*Elected by the Chamber of Commerce.*—The Hon'ble Mr. M. de P. Webb, C.I.E., (Forbes, Forbes, Campbell & Co., Ltd.), Mr. J. H. Fyfe, (Mackinnon, Mackenzie & Co.), Mr. James Kenyon, (Sarday, Patrick & Co.).

*Elected by the Municipality.*—The Hon'ble Mr. Harchandji Vishnudas, B.A., LL.B., and Mr. Yusufali Ailbhai.

*Officers of the Trust are:—*

*Secretary.*—Mr. R. W. Cooper.

*Chief Engineer.*—Mr. G. R. Lynn.

The revenue receipts and expenditure of Karachi port for the year 1912-13 were as under:—

Revenue receipts (excluding expenditure from the Port Fund Account) Rs. 45,386,102; Expenditure Rs. 37,70,036, Surplus Rs. 8,16,046. The revenue receipts were the highest ever realized in the history of the port, exceeding those of 1911-12, the previous highest, by Rs. 5,78,913. In 1907 the Port Trust appointed a committee, who after a very careful enquiry reported that as far as they were able to estimate, the income in 1917-18 would approximate Rs. 45,87,800, being roughly 50 per cent. more than the income in 1906-07. The Board adopted the figure, and in reporting on the subject, remarked that "looking at the growth of this port in the past ten years, in

which period their revenue has increased by 25 per cent., they can see no reason why their revenue should not increase by 50 per cent. in the next ten years." The figures given above show that the Board's estimate was far from unduly sanguine, as their income has increased by 50 per cent. in half the period named. New Port Trust Offices are being built and are approaching completion. A new Customs House has been undertaken. The number and size of vessels handled by the pilots during 1912-13 was larger than in any previous year.

The close of the year 1912-13 marked the practical completion of works the result of which will be a new departure in the history of the Trust. The year 1913-14 finds the new "Mansfield" import yard in full working order, and the old yard handed over to the North-Western Railway. The Kearnari yard becomes purely an exporters' yard, the whole of the stacking areas therein being reserved for the use of the export merchants. All the local merchants who were formerly accommodated at Kearnari are allotted areas in the Thole produce yard, and the stacking area available on the Port Trust premises becomes increased by the area of the plinths in that yard, viz., 198,000 square yards. The result will be enormously to facilitate the operations of the Port Trust and the North-Western Railway. Development of port facilities is in progress in several other directions. The Port Trust staff was re-organized during the year with effect from the 1st April, 1913, and for the first time, a whole-time Chairman of the Trust was appointed.

### MADRAS.

The following seventeen gentlemen are the Trustees of the Port of Madras:—

*Officials.*—The Hon'ble Sir Francis J. F. Spring, K.C.I.E., (Chairman), Mr. A. S. A. Westrepp, I.C.S., (Collector of Customs), Mr. S. D. Pears, and the Port Officer, Commander D. F. Vines, R.N.

*Non-Officials.*—Khan Bahadur Muhammad Abdul Kuddus Badsha Sahib, M., R. Ry. Rao

Bahadur P. Theagaraya Chetti Garu, B.A., M. R. Ry. Rao Bahadur G. Narayanaswami Chetti Garu.

*Representing Chamber of Commerce.*—Mr. G. Fraser, Mr. J. A. Boyson, Mr. A. H. Deane, Mr. R. Grcenall.

*Trades Association.*—The Hon'ble Mr. R. Maclure Savage.

The receipts of the Trust from all sources of revenue during the financial year 1912-13, including the grant of Rs. 35,000 from the Government Port Fund, were Rs. 12,05,173, and the gross expenditure out of revenue Rs. 8,33,298, or to the equivalent of 65·82 of the gross receipts. The actual working expenses of the port came to 41·32 per cent. of the gross receipts. Vessels of all sorts to the number of 615 and a tonnage of 1,678,823, paid port dues and about 370,914 tons of goods in transit were handled by the Trust. The total value of merchandise passing through the Trust's premises was Rs. 21,60,43,072. The value of the trade of the port was 27 per cent. above the previous 8-year average and 10 per cent. above that of 1911-12. During

nine years the trade of the port has grown at the rate of about 6 per cent. per annum.

Constant improvements of the port are in progress to meet the increasing demands of trade. The Trust has just launched out into a policy of borrowings in order to enable the entire 200 acres within the enclosed harbour to be deepened from 26 to 32 feet below low water, with quay extensions. The Government of India sanctioned a loan of Rs. 50 lakhs for this purpose. The work has been vigorously proceeded with and it is hoped that by the end of 1913-14 sufficient progress will have been made to enable two or three more vessels to be laid alongside the quays. Other important new developments are a new coal yard and an enlarged joint harbour railway station. These are the next works in prospect.

### RANGOON.

The personnel of the Commissioners for the port of Rangoon is comprised of the following thirteen members:—

*Appointed by Government.*—Mr. George Cunningham Buchanan, C.I.E., M. Inst. C.E. (Chairman), Mr. Alfred Stewart Judge (Chief Collector of Customs, Burma), Mr. William Henry Tarleton (Commissioner of Police, Rangoon.), Commander Seymour Douglas Vale, R.I.M. (Principal Port Officer, Burma), Messrs. Gavin Scott, M.A., I.C.S. (President, Rangoon Municipal Committee), Charles Townley Graham, Philip Henry Browne and Frederick Lovelace Bigg-Wither.

*Elected by the Burma Chamber of Commerce.*—Messrs. John Renwick Halliday, Berkeley John Byng Stephens, James Cleland Mackendrick and William Macdonald.

*Elected by the Rangoon Trades Association.*—Mr. Jules Emile DuBern.

Officers of the Trust are:—

*Secretary.*—Mr. I. Cowling.

*Resident Engineer.*—Mr. J. I. Holmes.

*Executive Engineer (River Training Works).*—Mr. W. G. Keay.

The receipts and expenditure on revenue account of the port of Rangoon in 1912-13 were as follow:—

	Rs.
Receipts .. ..	43,93,456
Expenditure .. ..	35,95,793

The capital debt of the port fund at the end of the year was Rs. 2,38,71,053.

The total value of the trade of the port during the year was Rs. 5,436 lakhs, as compared with Rs. 4,872 lakhs in the preceding year. There was an increase under all principal heads of imports amounting to 22·7 per cent. compared with those of the preceding year and of 49·1 per cent over the figures of 1901-02. Exports showed very little change last year compared

with the preceding year, but an increase of 13·1 per cent. over 1901-02.

The cargo landed on the Commissioners' wharves and pontoons from sea-going vessels amounted to 572,178 tons and the total volume of imports from European ports was 197,680 tons and the imports from Asiatic ports 374,518. The traffic at the jetties for inland vessels totalled 1,197,051 tons. The total number of steamers entering the port was 1452, with a total net tonnage of 2,853,251, being an increase of 222,559 tons over the previous year, and 1,446 steamers with a net tonnage of 2,811,787 left the port. The total net tonnage of vessels entering the port was the largest on record.

The Commissioners gave special consideration during the year to the problem of maintaining a deep water channel at the entrance of the harbour. Reports were submitted by the Port Engineers and two independent experts and their unanimous opinion was to the effect that until the completion of the upper river training works it would be impossible to decide as to which of the various channels across the Hastings shoal should be made the deep channel, that a great deal more information in the shape of surveys and scientific observations of the flow of the currents was required, and that whatever channel was finally selected a powerful dredger would be necessary to maintain the required depth of water through the dry weather. A pipe line dredger was considered unsuitable as the pipe line blocked the channel, and they recommended the purchase of a trailing suction hopper dredger of 1,200 tons capacity. The Commissioners immediately took action in accordance with the reports, both as regards the purchase of a dredger and for the execution of further surveys. The Burma Government approved the proposals and the new dredger is due for delivery in January, 1914.

Work on the river training works was exceedingly active during the year and the scheme was pushed forward in every direction.

# Indian Orders

## The Star of India.

The Order of the Star of India was instituted by Queen Victoria in 1861, and enlarged in 1866, 1876, 1897, 1902, and 1911; and the dignity of Knight Grand Commander may be conferred on Princes or Chiefs of India, or upon British subjects for important and loyal service rendered to the Indian Empire; the second and third classes for services in the Indian Empire of not less than thirty years in the department of the Secretary of State for India. It consists of the Sovereign, a Grand Master (the Viceroy of India), the first class of forty-four Knights Grand Commanders (22 British and 22 Indian), the second class of one hundred Knights Commanders, and the third class of two hundred Companions, exclusive of Extra and Honorary Members, as well as certain additional Knights and Companions.

The Insignia are (i) the Collar of gold, composed of the lotus of India, of palm branches tied together in saltire, of the united red and white rose, and in the centre an Imperial Crown; all enamelled in their proper colours and linked together by gold chains. (ii) The Star of a Knight Grand Commander is composed of rays of gold issuing from a centre, having thereon a star of five points in diamonds resting upon a light blue enamelled circular riband, tied at the ends and inscribed with the motto of the Order, *Heaven's Light our Guide*, also in diamonds. That of a Knight Commander is somewhat different, and is described below. (iii) The Badge, an onyx cameo having Her Majesty Queen Victoria's Royal Effigy thereon, set in a perforated and ornamental oval, containing the motto of the Order surmounted by a star of five points, all in diamonds. (iv) The Mantle of light blue satin lined with white, and fastened with a cordon of white silk with blue and silver tassels. On the left side a representation of the Star of the Order.

The ribbon of the Order (four inches wide for Knights Grand Commanders) is sky-blue, having a narrow white stripe towards either edge, and is worn from the right shoulder to the left side. A Knight Commander wears (a) around his neck a ribbon two inches in width, of the same colours and pattern as a Knight Grand Commander, and pendent therefrom a badge of a smaller size, (b) on his left breast a Star composed of rays of silver issuing from a gold centre, having thereon a silver star of five points resting upon a light blue enamelled circular ribbon, tied at the ends, inscribed with the motto of the Order in diamonds. A Companion wears from his left breast a badge of the same form as appointed for a Knight Commander, but of a smaller size pendent to a like ribbon of the breadth of one and a half inches. All Insignia are returnable at death to the Central Chancery, or if the recipient was resident in India, to the Secretary of the Order at Calcutta.

**Sovereign of the Order:**—H. I. M. The King.

**Grand Master of the Order:**—The Viceroy for the time being, Baron Hardinge of Penshurst.

**Honorary Knights Grand Commanders**  
(G. C. S. I.)

The Zil-es-Sultan of Persia  
Prince Louis d'Arberg

**Extra Knights Grand Commanders**  
(G. C. S. I.)

H. M. the Queen  
H. R. H. The Duke of Connaught

**Knights Grand Commanders (G. C. S. I.)**

H. H. the Gackwar of Baroda  
H. H. the Maharana of Udaipur  
H. H. the Maharajah of Jaipur  
H. H. the Maharaja of Travancore  
The Marquis of Lansdowne  
Baron Reay  
H. H. the Maharaja of Jammu and Kashmir  
Viscount Cross  
Field-Marshal Earl Roberts  
The Earl of Elgin  
H. H. the Maharaja of Kohlapur  
H. H. the Maharaja of Gwalior  
Lord Harris  
H. H. the Maharaja of Rewa  
Baron Macdonnell  
H. H. the Maharaja of Idar  
Earl Curzon of Kedleston  
Baron Sandhurst  
Lord George Hamilton  
H. H. the Raja of Cochin  
Baron Amphilhil  
Maharaja Sir Chandra Shamsha Jung of Nepal  
The Earl of Minto  
H. H. the Maharaja of Orchha  
H. H. the Maharaja of Mysore  
Field-Marshal Viscount Kitchener  
H. H. the Begum of Bhopal  
Sir Stuart Bailey  
Sir Dennis Fitz-Patrick  
Sir William Lee-Warner  
Sir Dighton Probyn  
Baron Sydenham  
Sir Arthur Lawley  
Sir John Hewitt  
H. H. the Maharaja of Bikaner  
H. H. the Maha Rao of Kotah  
General Sir O'Moore Creagh  
H. H. the raja of Kapurthala  
H. H. the Nizam of Hyderabad  
H. H. the Aga Khan  
H. H. the Nawab of Tonk.

**Knights Commanders (K. C. S. I.)**

The Earl of Cromer  
Sir Joseph West Ridgeway  
Sir Theodore Craicra Hope  
Sir William Chichele Plowden  
Sir James Broadwood Lyall  
Sir Charles Haukes Tod Crosthwaite  
Sir David Miller Barbour  
Sir Andrew Richard Scoble  
Sir Phillip Perceval Hutchins  
Sir Henry Edward Stokes  
Sir Henry Waterfield  
Sir Henry Mortimer Durand  
Maj.-Gen. Sir Oliver Richardson Newmarch  
Sir Frederick William Richards Fryer  
H. H. Maharao of Sirohi  
Sir Courtenay Peregrine Ilbert  
Lieut.-Col. Sir George Scott Robertson  
Gen. Sir Henry Brackenbury  
Sir William Erskine Ward  
Brig. Surg.-Lieut.-Col. Sir Alfred Swaine  
Lethbridge

**H. H. Maharao of Bundi**  
**Sir Edward Charles Buck**  
**Sir William Mackworth Young**  
**Sir Charles James Lyall**  
**Sir Robert Joseph Crowthwaite**  
**Sir William John Cunningham**  
**Sir Richard Udny**  
**Colonel Sir Howard Mellis**  
**Sir Arthur Charles Trevor**  
**Sir John Frederick Price**  
**Sir Charles Montgomery Rivaz**  
**Sir James Digges La Touche**  
**Sultan Sir Ahmad Fadhil, of Lahej**  
**Lieut.-Col. Sir David William Keith Barr**  
**Sir Henry John Stedman Cotton**  
**Admiral Sir Charles Carter Drury**  
**Sir Henry Martin Winterbotham**  
**Sir James Monteath**  
**Lieut.-Col. Sir Donald Robertson**  
**Sir Andrew Henderson Leith Fraser**  
**Sir Hugh Shakespear Barnes**  
**Sir William Roe Hooper**  
**Col. Sir Colin Campbell Scott Moncrieff**  
**H. H. Raja of Tehri (Garhwal)**  
**Kunwar Sir Ranbir Singh, of Patiala**  
**Sir Arundel Tagg Arundel**  
**Sir Thomas Raleigh**  
**H. H. Thakur Sahib of Bhaunagar**  
**Sir Arthur Henry Temple Martindale**  
**Sir James Thomson**  
**Sir Joseph Bampfylde Fuller**  
**H. H. Raja of Chamba**  
**Lieut.-Col. Arthur John, Baron Stamfordham**  
**Maj.-Genl. Sir Stuart Brownlow Beatson**  
**Sir Thomas William Holderness**  
**Sir Lancelot Hare**  
**Sir Charles Stuart Bayley**  
**H. H. Raj Rana of Jalawar**  
**Raja Sir Tasadduk Rasul Khan of Jahangirabad, Oudh**  
**Sir John William Pitt Muir-Mackenzie**  
**Nawab Bahadur Sir Khwaja Sallimulla of Dacca**  
**Sir James Wilson**  
**H. H. Maharaja of Alwar**  
**H. H. Raja of Jind**  
**Sir Henry Eric Richards**  
**Sir Gabriel Stokes**  
**Sir George Stuart Forb**  
**H. H. Raja of Ratlam**  
**James Lyle, Baron Inchcape**  
**Sir Harvey Adamson**  
**Gen. Sir Beauchamp Duff**  
**Nawab of Murshidabad**  
**Lieut.-Col. Sir James Robert Dunlop-Smith**  
**Sir John Ontario Miller**  
**Sir Lionel Montague Jacob**  
**Sir Murray Hannick**  
**Sir Krishna Gobinda Gupta**  
**Sir Leslie Alexander Selim Porter**  
**Sir Spencer Harcourt Butler**  
**Sir Robert Warrand Carlyle**  
**H. H. Maharaja of Kislangarh**  
**Sir Reginald Henry Craddock**  
**Sir James McCrone Douie**  
**Sir James Scorgie Meston**  
**Sir Benjamin Robertson**  
**Sir Richard Amphlett Lamb**  
**Maharajadhiraja of Burdwan**  
**Sir Elliot Graham Colvin**  
**Sir Trevorlyn Rashleigh Wynne**  
**Surg.-Gen. Sir Charles Fardey Lukis**  
**Sir Stanley Ismay**  
**Sir George Casson Walker**

**H. H. Raja of Dhar**  
**H. H. Raja of Dewas State (Senior Branch)**  
**Surg.-Gen. Sir Francis Wollaston Trevor**  
**H. H. Maharaja of Bhutan**  
**Sir John Nathaniel Atkinson**  
**Sir William Thomson Morison**  
**Sir George Head Barclay**  
**Lieut.-Gen. Sir James Willcocks**  
**Lieut.-Col. Sir G. Roos-Koppel**  
**Lt M. F. O'Dwyer**

### Companions (C. S. I.)

**Lieut.-Col. William Dickinson**  
**Gen. Sir Peter Stark Lumsden**  
**Gen. Sir Martin Dillon**  
**Major-Gen. Beresford Lovett**  
**Gen. Sir Thomas E. Gordon**  
**Major-Gen. Phillip Durham Henderson**  
**Col. Leopold John Herbert Grey**  
**Sir George Christopher Molesworth Birdwood**  
**Robert Davidson**  
**Major-Gen. Henry Wylie**  
**Major-Gen. William Tweedie**  
**Sir Henry William Primrose**  
**Herbert John Reynolds**  
**Lieut.-Gen. Michael Weeks Willoughby**  
**Raja Piar Mohan Mukharji of Uttarpara**  
**Sir Frederick Russell Hogg**  
**Col. Charles Edward Yate**  
**William Rudolph Henry**  
**Rao Chhatrapati Bahadur, Jagirdar of Alipura**  
**Col. Edward L. Onmanney**  
**Col. John Clerk**  
**James Richard Naylor**  
**David Robert Lyall**  
**Sardar Jiwan Singh, of Shahzadpur**  
**Col. George Herbert Trevor**  
**Col. Frederick J. Home**  
**Lieut.-Col. Henry St. Patrick Maxwell**  
**Raja Udai Partab Singh, of Bhilaja**  
**Sir Jervoise Athelstane Baines**  
**Sir Thomas Salter Pyne**  
**Major-Gen. Robert Charles Boileau Pemberton**  
**Col. Wm. Francis Prideaux**  
**Alan Cadell**  
**Arthur Forbes**  
**Kerala Varma Vallya Koll Tamburan, of Travancore**  
**Sir Arthur Upton Fanshawe**  
**Col. George Fletcher Otley Bingham**  
**James Fairbairn Finlay**  
**Joseph Parker**  
**Sir John Molesworth Macpherson**  
**Charles Walter Bolton**  
**Horace Frederick D'Oyly Moule**  
**Surg.-Gen. James Clegghorn**  
**Col. Thomas Orcey**  
**Col. James Aloystus Miley**  
**Sir Henry Babington Smith**  
**Henry Alken Anderson**  
**Lieut.-Col. Sir Arthur Henry McMahon**  
**Sir Henry Evan Murchison James**  
**James Knox Spence**  
**Charles William Odling**  
**Alexander Walmsley Cruickshank**  
**David Norton**  
**Thomas Stoker**  
**Col. Maule Campbell Brackebury**  
**Sir Edward Richard Henry**  
**Lucas White King**  
**Sir Mackenzie Dalzell Chalmers**  
**Surg.-Gen. David Sinclair**  
**Henry Farrington Evans**

Lt.-Col. John Muir Hunter  
 Richard Gillies Hardy  
 Sir Frederick Robert Upcott  
 Herbert Charles Fapshawe  
 Sir Frederick Styles Philipin Lely  
 George Robert Irwin  
 Lieut.-Gen. Sir George Lloyd Reilly Richardson  
 Robert Burton Buckley  
 Arthur Frederick Cox  
 Charles Gerwien Bayne  
 Hartley Kennedy  
 Sir Edwin Grant-Burles  
 Major-Gen. Trevor Bruce Tyler  
 William Charles Macpherson  
 Col. St. George Corbet Gore  
 Lt.-Col. James Alexander Lawrence Montgomery  
 Lt.-Gen. Henry Doveton Hutchinson  
 Lieut.-Col. Sir Hugh Daly  
 Raja of Burdwan  
 Nawab of Pahasu  
 Sardar Nandan Singh of Malaudhi  
 Sir Thomas Gordon Walker  
 Col. James White Thurburn  
 Sir Edmund McGildowny Hope Fulton  
 Alfred Brereton  
 William Thomas Hall  
 Richard Townsend Greer  
 Col. Robert Henry Jennings  
 Sir Harold Arthur Stuart  
 Sir Louis William Dane  
 Sir Alfred Macdonald Bulteel Irwin  
 Lt.-Col. James Bird Hutchinson  
 Raja Ram Pal of Kotlehr  
 Herman Michael Kisch  
 Sir Cecil Michael Wilford Brett  
 Herbert Bradley  
 Sir Frank Campbell Gates  
 John Mitchell Holms  
 Percy Seymour Vesey Fitzgerald  
 Lt.-Col. Willoughby Pitcairn Kennedy  
 William Henry White  
 Raja Narendra Chand  
 Arthur Delaval Youngusband  
 Oscar Theodore Barrow  
 Col. Howard Good  
 Francis Alexander Slack  
 Salyid Husain Bilgrami  
 Percy Comyn Lyon  
 Algernon Robert Sutherland  
 Michael Francis O'Dwyer  
 Sir George Watson Shaw  
 William Arbuthnot Inglis  
 Romer Edward Youngusband  
 Col. Herbert Mullaly  
 John Alexander Broun  
 Col. Henry Finnis  
 Maharaj Bhairon Singh  
 Maj.-Gen. Sir Alfred William Lambert Bayly  
 Maurice Walter Fox-Strangway  
 William Lochiel Sapte Lovett Cameron  
 Sir Edward Douglas MacLagan  
 Munshi Madho Lal  
 John Statheden Campbell  
 Lieut.-Col. Charles Herbert  
 Sir Ashutosh Mukharji  
 Maj.-Gen. Sir Henry Montague Pakington  
 Hawkes  
 Dr. Rash Behari Ghosh  
 Francis Capel Harrison  
 Lieut.-Col. Sir Percy Zachariah Cox  
 Comdr. Sir Hamilton Pym Freer-Smith  
 Andrew Edmond Castle Stuart  
 Brig.-Gen. William Riddell Birdwood

Norman Goodford Cholmley  
 Duncan Colvin Ballie  
 Walter Francis Rlee  
 Alexander Gordon Cardew  
 Sir Frederick William Duke  
 Havilland Le Mesurier  
 Claud Hamilton Archer Hill  
 Cecil Edward Francis Bunbury  
 Col. Reginald Henry Mahon  
 Michael William Fenton  
 Lieut.-Col. Alexander Fleetwood Pinhey  
 Capt. Allen Thomas Hunt  
 Walter Badock  
 James Mollison  
 Pirajirao Bapu Sahib Ghatge  
 Robert Woodburn Gillan  
 John Walter Hose  
 Charles Ernest Vear Goument  
 Harrington Verner Lovett  
 Herbert Lovely Eales  
 George Gilbert White  
 Col. Sidney Gerald Burrard  
 Frederick Bradon Bryant  
 Lieut.-Col. Herbert Lionel Showers  
 Frank George Sly  
 George Moss Harriott  
 Ernest Herbert Cooper Walsh  
 Edward Vere Levinge  
 Robert Nothan  
 Arthur Meredith  
 Lieut.-Col. Charles Archer  
 James Peter Orr  
 Herbert Alexander Casson  
 William Axel Hertz  
 Mahadev Bhaskar Chaulabai  
 George Seymour Curtis  
 Syed Ali Imam  
 William Henry Clerk  
 Major Francis Aylmer Maxwell  
 Major Olive Wigram  
 Herbert Thomson  
 Rao Bahadur Nanak Chand  
 Lieut.-Col. William Burney Bannerman  
 Lieut.-Col. John Ramsay  
 Stuart Lockwood Maddox  
 Gilbert Thomas Walker  
 Lieut.-Col. Phillip Richard Thornhagh Gurdon  
 Khan Zulfiqar Ali Khan of Maler Kotla  
 Col. George Francis Angelo Harris  
 Edmund Vivian Gabriel  
 John Stuart Donald  
 Henry Montague Segundo Mathews  
 Arthur Crommelin Hankin  
 Faridoonji Jamshedji  
 Maulvi Ahmad Hussain  
 Horace Charles Mules  
 H. H. Raja Bijje Chand, Chief of Kahlur  
 Lieut.-Col. Arthur Russell Aldridge  
 Maj. Mathew Richard Henry Wilson  
 John Charles Burnham  
 Brev.-Col. Thomas Francis Bruce Renny-  
 Tailyour  
 Michael Kennedy  
 Thakor Karansinghji Vajirajji  
 Meherban Mudhojirao Janrao Naik Nana Nim-  
 balkar  
 Major Alain Chartier de Lotbiniere Joly de  
 Lotbiniere  
 Brig.-Gen. Herbert Vaughan Cox  
 Brev.-Col. Robert Smeiton MacLagan  
 Lieut.-Col. Charles Mowbray Dallas  
 Edward Henry Scamander Clarke  
 Jagadish Chundra Bose

Abbas Ali Baig  
 Oswald Campbell Lees  
 Lt.-Col. G. G. Giffard  
 F. W. Johnston  
 William Henry Lucas  
 A. L. Saunders  
 Vakhatsinghji Keesarsinghi  
 Paul Gregory Mellitus  
 Lieut.-Col. Albert Edward Woods  
 William Exall Tempest Bennett  
 Hon. Maj. Sahibzada Obaidullah Khan  
 William Ogilvie Horne  
 Pazhamaneri Sundaran Aiyar Sivaswami Aiyar  
 William Harrison Moreland, C.I.E.  
 Edward Albert Gait, C.I.E.  
 Diwan Bahadur Chaube Raghunath Das, of  
 Kotah  
 Col. Lestock Hamilton Reid  
 Surg.-Gen. Henry Wickham Stevenson  
 Hon. Lieut.-Col. Raja of Lambagraon  
 Lionel Davidson  
 George Carmichael  
 Lieut.-Col. Donald John Campbell MacNabb  
 Lieut.-Col. Henry Walter George Cole  
 Stuart Mitford Fraser  
 Henry Venn Cobb

#### OFFICERS OF THE ORDER.

*Secretary*, Lieut.-Col. Sir A. H. McMahon  
*Registrar*, Col. Sir Douglas Dawson

### The Most Eminent Order of the Indian Empire.

This Order, instituted by H. M. Queen Victoria, Empress of India, Jan. 1st, 1878, and extended and enlarged in 1886, 1887, 1892, 1897, and 1902 is conferred for services rendered to the Indian Empire, and consists of the Sovereign, a Grand Master, thirty-two Knights Grand Commanders (of whom the Grand Master is first and principal), ninety-two Knights Commanders, and an indefinite number of Companions (not exceeding, without special statute, 20 nominations in any one year); also Extra and Honorary Members over and above the vacancies caused by promotion to a higher class of the Order, as well as certain Additional Knights and Companions appointed by special statute Jan. 1st, 1909, commemorative of the 50th Anniversary of the assumption of Crown (Govt in India).

The Insignia are: (i) The COLLAR of gold, formed of elephants, lotus flowers, peacocks in their pride, and Indian roses, in the centre the Imperial Crown, the whole linked together with chains; (ii) The STAR of the Knight Grand Commander, comprised of five rays of silver, having a small ray of gold between each of them, the whole alternately plain and scaled, issuing from a gold centre, having thereon Her Majesty Queen Victoria's Royal Effigy, within a purple circle, edged and lettered gold, inscribed *Imperatrix Auspiciis*, and surmounted by an Imperial Crown gold; (iii) The BADGE, consisting of a rose, enamelled gules, barbed vert, and having in the centre Her Majesty Queen Victoria's Royal Effigy, within a purple circle, edged and lettered gold, inscribed *Imperatrix Auspiciis*, surmounted by an Imperial Crown, also gold; (iv) The MANTLE is of Imperial purple satin, lined with and fastened by a cordon of white silk, with purple silk and gold tassels attached. On the left side a representation of the Star of the Order.

A Knight Commander wears: (a) around his neck a ribbon two inches in width, of the same colour (purple) and pattern as a Knight Grand Commander, pendent therefrom a badge of smaller size; (b) on his left breast a star, similar to that of the first class, but the rays of which are all of silver.

The above-mentioned Insignia are returned at death to the Central Chancery, or if the Knight was resident in India to the Secretary of the Order at Calcutta.

A Companion wears from the left breast a badge (not returnable at death) of the same form as appointed for a Knight Commander, but of smaller size, pendent to a like ribbon of the breadth of one and a half inches.

**Sovereign of the Order:**—The King-Emperor of India.

**Grand Master of the Order:**—Lord Hardinge.

**Honorary Knights Grand Commanders,**  
(G. C. I. E.)

The Emperor of Korea  
 The Sultan of Muscat

**Extra Knights Grand Commanders**  
(G. C. I. E.)

The Duke of Cannaught

**Knights Grand Commanders (G.C.I.E.)**

Lord Reay  
 Field Marshal Lord Roberts  
 The Rao of Cutch  
 Lord Lansdowne  
 Lord Harris  
 The Nawab of Tonk  
 Sir James Lyall  
 Lord Elgin  
 The Wali of Kalat  
 Lord Sandhurst  
 Maharaja of Karauli  
 Thakur Sahib of Gondal  
 Thakur Sahib of Morvi  
 Sir George Faudel-Phillips  
 The Maharaja of Benares  
 Sir Sher Muhammad Khan of Palanpur  
 Lord Curzon of Kedleston  
 The Maharaja of Jalpur  
 The Maharaja of Orichha  
 Lord Amphilhil  
 Maharao of Bundi  
 General Sir Alfred Gaselee  
 The Maha Rao of Sirahi  
 The Aga Khair  
 Sir Henry Waterfield  
 The Maharaja of Travancore  
 Lord Lamington  
 The Begam of Bhopal  
 Lord Minto  
 Sir Edmund Ellis  
 The Nawab of Janjira  
 Sir Walter Laurence  
 Sir Arthur Lawley  
 The Maharaja of Bikaner  
 The Maha Rao of Kota  
 Lord Sydenham  
 Lord Kitchener  
 The Nawab of Rampur  
 Maharaj Sir Kishen Parshad  
 Lord Carmichael  
 Maharaja of Kashmir

Sir Louis Dane  
 Maharaja of Bobbili  
 Lord Stamfordham  
 Sir Guy Fleetwood Wilson  
 Sir John Jordan  
 The Maharana of Udaipur  
 The Maharaja of Fatiala  
 The Mir of Kharipur  
 The Raja of Cochin  
 The Nawab of Dacca  
 Lord Pentland  
 The Raja of Pudukkottai  
 Lord Willingdon

**Honorary Knights Commanders  
 (K. C. I. E.)**

Sir Leon E. Clement-Thomas  
 H. E. Sir Hussein Kuli Khan, Moklber-ed-Dowlet  
 Sir Sven Hedin  
 The Sheikh of Mohamerah  
 Gen. Sir Albert Houtum Schindler  
 The Sheikh of Kowit

**Knights Commanders (K. C. I. E.)**

Sir Alexander Meadows Rendel  
 Sir George Christopher Molesworth Birdwood  
 Surg.-Gen. Sir Benjamin Simpson  
 Sir Albert James Leppoe Cappel  
 Sir Donald Mackenzie Wallace  
 Sir Alfred Woodley Croft  
 Sir Bradford Leslie  
 Sir Arthur Nicolson  
 Sir Guildford Molesworth  
 Sir Frederick Russell Hogg  
 Raja of Venkatagiri  
 Sir Henry Mortimer Durand  
 Sir Arthur George Macpherson  
 Sir William Markby  
 Sir Henry Stuart Cunningham  
 Raja of Lunawara  
 Sir Roper Lethbridge  
 Sir Edward Charles Kayll Ollivant  
 Sir Henry Hoyle Howarth  
 Sir Henry Seymour King  
 Sir Wm. Brereton Hudson  
 Gen. Sir Thomas Edward Gordon  
 Sir John Lambert  
 Baron Inchcape  
 Col. Sir Henry Revenshaw Thuillier  
 Sir Wm. R. Brooke  
 Maharaja of Gidhaur  
 Lieut.-Col. Sir Adalbert Cecil Talbot  
 Maj.-Gen. Sir Thomas Dennehy  
 H. H. Maharaja of Ajajgarh  
 Sir Henry William Bliss  
 Nawab of Lohard  
 Col. Sir William Bisset  
 Gen. Sir Edward Stedman  
 Sir John Jardine  
 Rear-Admiral Sir John Hext  
 Sir Mancherjee Bhownagree  
 Col. Sir Thomas Holdich  
 Sir Arthur Wilson  
 Sir Francis W. Maclean  
 Sir Andrew White  
 Kunwar Sir Harman Singh, Ahluwalla  
 Sir S. Subramanlya Aiyar  
 Sir Alexander Cunningham  
 Sir Henry Evan Murchison James  
 Nawab Sir Shahbaz Khan, Bugti of Baluchistan  
 Sir James George Scott

**Maharaja of Darbhanga**  
 Sir Thomas Higham  
 Col. Sir Samuel Swinton Jacob  
 Sir Lawrence Hugh Jenkins  
 Sir Herbert Thirkell White  
 Surg.-Gen. Sir Benjamin Franklin  
 Sir Frederick Augustus Nicholson  
 Sir Arthur Upton Fanshawe  
 Raja Dhiraj of Shahpura  
 Sir Gangadhar Rao Ganesh, Chief of Miraj (senior Branch)  
 Sardar Sir Ghaus Bakhsh, Raisani  
 Sir Henry Thoby Prinsep  
 Sir Pherozeshah Merwanji Mehta  
 Col. Sir Buchanan Scott  
 Col. Sir John Walter Otley  
 H. H. Raja of Sallana  
 Lieut.-Col. Sir Francis Edward Younghusband  
 Rt.-Col. Sir James R. L. Macdonald  
 Sri Sir Ugyen Wangchuk, Tongsa Penlop of Bhutan  
 Sir Fredric Styles Philpin Lely  
 Lt.-Col. Sir Arthur Henry McMahon  
 Gen. Sir Donald James Sim McLeod  
 Maharaja of Balrampur  
 Sir Francis Whitmore Smith  
 Nawab of Palasu  
 Rajgarh H. H. Raja Sir Bane Singh Bahadur  
 Sir Thomas Gordon Walker  
 Sir Arthur Naylor Wollaston  
 Sir Muhammad Aslam Khan  
 Sir Thomas Henry Holland  
 Nawab of Hyderabad  
 Lieut.-Col. Sir George Olaf Roos-Keppel  
 H. H. Maharajadhiraja of Kishangarh  
 Raja of Mahmudabad  
 Sir Trevelyan Rashleigh Wynne  
 Surg.-Gen. Sir Gerald Hornford  
 Sir Richard Morris Danc  
 Maharajadhiraja of Burdwan  
 Raja of Poonch  
 Nawab Sir Hafiz Muhammad Abdulla Khan, Alizai  
 Prince Ghulam Muhammad Ali, Khan Bahadur  
 Sir William Stevenson Meyer  
 Sir Wilhelm Schlich  
 Sir Theodore Morison  
 Maj.-Gen. Sir Robert Irvin Scallan  
 Sir John David Rees  
 Rear-Admiral Sir Edmond John Warre Slade  
 Sir John Benton  
 Sir Frederick William Duke  
 Sir Archdale Earle  
 Sir Charles Stewart-Wilson  
 Maj.-Gen. Sir Malcolm Henry Stanley Grover  
 Sir Charles Raitt Cleveland  
 Lieut.-Gen. Sir Douglas Haig  
 Yavaraia of Mysore  
 Lieut.-Col. Sir Hugh Daly  
 Sir Henry Parsall Burt  
 Sir James Houssemaine DuBoulay  
 H. H. Maharajadhiraja of Charkhari State, Bundelkhand  
 Sir Rajendra Nath Mukharji  
 Lieut.-Col. Sir Henry Beaufoy Thornhill  
 Sir Gangadhar Mahdo Chitnavis  
 H. H. Nawab of Jaora State  
 H. H. Raja of Sitaman State  
 Raj Sahib Sir Amarsinhji Banesinhji (Vankaner)  
 Sir Ram Krishna Gopal Bhandarkar  
 Sir Michael Filose  
 Rear-Adm. Sir Collin Richard Keppel  
 Surg.-Gen. Sir Arthur Mudge Branfott



Sir John Stanley  
 Sir Saint-Hill Eardley-Wilmot  
 Col. Sir Percy Zachariah Cox  
 Sir Francis Edward Spring  
 Maharaja Sri Sir Vickrama Deo  
 H. H. Maharaja of Sikkim  
 Rana of Thalrai (Kharajagaon)  
 Raja of Salempur  
 H. H. Maharaja of Alwar  
 H. H. Maharawal of Partabgarh  
 H. H. Raja of Rajpipla  
 Diwan Bahadur Sir Seth Kastirchand Daga  
 H. H. Maharaja of Bijawar State, Bundelkhand  
 Gen. Sir Mowbray Thomson  
 Sir John Twigg  
 Sir George Abraham Grierson  
 Sir Marc Aurel Stein  
 Maj.-Gen. Sir Francis Henry Rutherford  
 Drummond  
 H. H. Maharawal of Dungarpur  
 Nawab Sir Bahram Khan  
 Sir Henry Alexander Kirk  
 Sir Alfred Gibbs Bourne  
 Chief of Jamkhandl  
 Sir Frank Campbell Gates  
 Sir George Macartney  
 Sir Edward Douglas MacLagan  
 Maj.-Gen. Sir George John Younghusband

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The Earl of Cromer  
 Sir Courtenay P. Ilbert  
 Sir Theodore C. Hoop

#### Honorary Companions (C. I. E.)

Laurent Marie Emile Beauchamp  
 Jean Etienne Justin Schneider

#### Companions (C. I. E.)

Richard Kaye Puckle  
 Lieut.-Gen. Sir Henry Moore  
 Gen. William Gordon  
 Thomas Mitchell Gibbon  
 George Smith  
 Col. John H. Rivett-Carnac  
 Lieut.-Col. The Hon. George Campbell Napier  
 Roseoe Boequet  
 Bamanji Jamasji Dastur  
 Surg.-Major Daniel Robert Thompson  
 Lieut.-Gen. James F. Tennant  
 Pierre Francois Henri Nanquette  
 Stephen Paget Walter Vyvyan Luke  
 Sir Charles James Lyall  
 Charles Edward Pitman  
 Raja Sir Saurindra Mohan Tagor  
 Richard Isaac Bruce  
 Sir Stuart Colvin Bayley  
 Lieut.-Col. Charles William Owen  
 Henry Lucius Dampier  
 George Felton Mathew  
 Khan Bahadur Pestanji Jehangir  
 Hony. Col. John Robertson  
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 Henry George Keene  
 Maj.-Genl Thomas Ross Church  
 Thakur Bichu Singh  
 John Faithfull Fleet  
 Rev. William Miller  
 Benjamin Lewis Rice  
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 James Burgess  
 Mortimer Sloper Howell  
 Rai Bahadur Surat Chandra Das  
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 Sir George Watt, M.B.  
 Sir John W. Tyler, M.D.  
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 Lieut. Joseph Ralph Edward John Royle  
 Rai Mahla Punna Lalji  
 Lieut.-Col. Frederick D. Raikes  
 William Wordsworth  
 Henry Montagu Matthews  
 Colonel John Stewart  
 The Rt. Hon. Saiyid Ameer Ali  
 William James Maitland  
 Col. Charles Weymss Muir  
 Sir Frank Forbes Adam  
 Frederick Thomas Granville Walton  
 Major-Gen. Charles Smith Maclean  
 Major-Gen. James Cavan Berkeley  
 Charles Henry Tawney  
 Henry Irwin  
 Arthur H. Hildebrand  
 Sir James L. Walker  
 Surgn.-Maj. John Findlay  
 Rayner Childe Barker  
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 Col. William Merriman, R.E.  
 Gen. William Percival Tomkins  
 Berthold Ribbentrop  
 Langton P. Walsh  
 Jeremiah G. Horsfall  
 Edmund Neel  
 Major George L. Holford  
 Maj.-Gen. J. H. E. Tucker  
 James Edward O'Connor  
 Col. Thomas Holbein Hendley  
 Ernest Octavius Walker  
 Sir John Prescott Hewett  
 Mancherji Kavaji Murzban, Khan Bahadur  
 Frederick C. Daukes  
 Lieut.-Col. Henry Percy Poyndestrel Leigh  
 Sir J. Bampfylde Fuller  
 George Pringle Rose  
 Diwan Ganpat Rai  
 Sir William Turner Threlton-Dyer  
 William B. Oldham  
 Major-Gen. G. F. L. Marshall  
 Edward Horace Man  
 Commdr. Alexander Campbell  
 Shaikh Baha-ud-din, Nawab-I-Am  
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 Lieut.-Gen. Sir G. L. R. Richardson  
 Paul Gregory Melitus  
 Col. Ernest H. Fenn  
 Lt.-Col. Sir Richard Carnac Temple  
 Edward C. S. George  
 Robert W. E. H. Vincent  
 Lt.-Col. J. Fanners Smith  
 John Stuart Donald  
 Col. Frank William Chatterton  
 Graham Anderson  
 Sri Ram Bhikaji Jatar  
 Fazulshah Visram  
 Col. H. S. Jarett  
 Col. H. B. Sanderson  
 Arthur C. Hankin  
 Adam G. Tytler  
 Charles E. Buckland  
 Alexander B. Patterson  
 Harry A. Acworth  
 Col. C. A. Porteous  
 Col. C. T. Lane  
 Sir Steyning W. Edgerley  
 Maulvi Abdul Jabbar, Khan Bahadur

- Col. W. R. Yeilding  
 Henry J. Stanyon  
 Sir Patrick Playfair  
 Frederick John Johnstone  
 Col. Samuel Haslett Browne  
 Dr. Rash Behari Ghosh  
 Frank Henry Cook  
 Francis Erskine Dempster  
 Col. John Shakespeare  
 Lieut.-Col. James John Macleod  
 Capt. Norman Franks  
 Sir William Earnshaw Cooper  
 Maharaj Rajashri Sankara Subbaliyar  
 Khan Bahadur Naoroji Pestonji Vakil  
 Col. Russell Richard Pulford  
 Col. Algernon George Arnold Durand  
 Frederick Shore Bullock  
 Gen. Sir Beauchamp Duff  
 Col. Robert Alexander Wauhope  
 Edwin Darlington  
 J. Strachan  
 Dr. Waldemar M. Haefkine  
 Dr. Augustus Frederick Rudolf Hoernle  
 Rustamji Dhanjibhai Mehta  
 Charles Godolphin William Hastings  
 Khan Bahadur Mancherji Rustamji Dholi  
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 Duncan James Macpherson  
 John Campbell Arbuthnot  
 Sir Robert Warrand Carlyle  
 Henry Cecil Ferard  
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 Robert Batson Joyner  
 Charles George Palmer  
 Lieut.-Col. Samuel John Thomson  
 Lieut.-Col. Sir David Parkes Masson  
 Lieut.-Col. Frederick Fitzgerald MacCartie  
 Rai Bahadur Sir Bipin Krishna Bose  
 P. C. H. Snow  
 Hony. Lieut.-Col. Kunwar Bir Bikram Singh  
 Major A. B. Minchin  
 W. T. Van Someren  
 Col. Charles Still  
 Col. H. K. McKay  
 A. Izat  
 Rai Bahadur Dhanpat Rai  
 Lieut.-Col. W. B. Browning  
 Lieut.-Col. J. J. Holdsworth  
 Jack Francis Needhar  
 Edakji Dinshah  
 Robert Giles  
 Vishwanath Zantankar Madhava Rao  
 Col. Walter Gaten King  
 James Sykes Gamble  
 Sir George William Forrest  
 Lieut.-Col. Frank Popham Young  
 Reginald Hawkins Greenstreet  
 Khan Bahadur Kazi Jalal-ud-din, Akhundzada,  
 of Kandahar  
 John Sturock  
 John Stuart Bressford  
 Lieut.-Col. Malcolm John Meade  
 Edward Louis Cappel  
 Sir Lancelot Hare  
 George Moss Harriott  
 Frederick George Brunton Trevor  
 Rai Bahadur Kalika Das Datta  
 Diwan Bahadur P. Rajendra Mudaliyar  
 Sir Walter Charles Hughes  
 Col. Sydney Long Jacob  
 Edmund Penny  
 Henry Marsh  
 Col. Almer Martin Crofts  
 Lieut.-Col. Bertrand Evelyn Mellish Gurdon  
 Rai Bahadur Kailash Chandra Bose  
 Henry Felix Hertz  
 Courtenay Walter Bennett  
 H. H. Raja Sir Bhure Singh  
 Rear-Admiral Walter Somerville Goodridge  
 Col. Solomon Charles Frederick Peile  
 Bertram Prior Standen  
 Henry Alexander Sim  
 Lieut.-Col. Sir James Robert Dunlop-Smith  
 Lt.-Col. John Crimmin  
 Lieut.-Col. Granville Henry Loch  
 Fardunji Kuvorji Tarapurvala  
 Babu Kali Nath Mitter  
 Frederick William Latimer  
 Sir William Jameson Soulsby  
 Col. William John Read Rainsford  
 Col. Oswald Claude Radford  
 Col. George Kenneth Scott-Moncrieff  
 Lieut.-Col. Thomas Edwin Scott  
 Lieut.-Col. Laurence Austine Waddell  
 Sardar Mir Asaf Ali Khan  
 Subadar-Major Sardar Khan  
 Hony. Capt. Yasin Khan  
 Commander Gerald Edward Holland  
 Sidney Preston  
 Sir Murray Hammick  
 Sir Alexander Pedler  
 Sir Richard Amplett Lamb  
 Alexander Lauzin Pendock Tucker  
 Diwan Bahadur Kanchi Krishnaswami Rao  
 Lieut.-Col. John Clibborn  
 Col. George Wingate  
 Lieut.-Col. George Hart Desmond Gimlette  
 Arthur Henry Wallis  
 Alexander Johnstone Dunlop  
 George Herbert Dacres Walker  
 Lieut.-Col. Alexander Fleetwood Pinhey  
 Rai Bahadur Nanak Chand  
 Sir Spencer Harcourt Butler  
 Major Frank Cooke Webb Ware  
 Hony. Major Thomas Henry Hill  
 Alexander Porteous  
 Col. Thomas Elwood Lindsay Bate  
 Hon. Lockhart Mathew St. Clair  
 Marshall Reid  
 Rao Bahadur Pandit Sakheo Parshad  
 Stuart Mitford Fraser  
 John Gordon Lorimer  
 Lieut.-Col. Herbert Lionel Showers  
 Maj.-Gen. Francis Edward Archibald Chamer  
 Lt.-Gen. Ernest De Brath  
 Rai Bahadur Sir Pratul Chandar Chatterji  
 Frederick Gurr Maclean  
 Walter Bernard de Winton  
 Algernon Elliott  
 Lt.-Col. Charles Arnold Kemball  
 Sir Herbert William Cameron Carnduff  
 Lieut.-Col. John Hoddging  
 Edward Giles  
 Havilland Le Mesurier  
 Robert Nathan  
 Lieut.-Col. Alfred William Alcock  
 Arthur Hill  
 Douglas Donald  
 Jagadish Chandra Bose  
 Mehtar Shuja-ul-Mulk, of Chitral  
 Mir Muhammed Nazim Khan, Mir of Hunza.  
 Raja Sikkandar Khan, of Nagar  
 Sir William Dickson Cruickshank  
 Thomas Jewell Bennett

Henry Wenden	Lt.-Col. Sir David Prain
Charles Henry Wilson	Col. William John Daniell Dundee
Rao Bahadur Shyam Sundar Lal, Diwan of Kishangarh	Brian Egerton
Robert Heriot Henderson	Hony. Capt. Malik Umar Haqat Khan, Tiwana of Kalra
Kun Kyi, Sawbwa of Mong Nai	Sir Ibrahim Rahimtoola
Mir Mehrulla Khan, Ralsani	Pandit Sundar Lal
Nawab Fatch Ali Khan, Kazilbash	Edward Albert Gait
Faridoonji Jamshedji	Robert Greig Kennedy
Charles Henry West	Hony. Col. Arthur Hills Gleadowe-Newcomen
John Pollen	Edward Anthony Doran
Charles Brown	Col. Henry Thomas Pease
George Huddleston	Lieut.-Col. Malcolm Sydenham Clarke Campbell
Lieut.-Col. Montagu William Douglas	Lieut.-Col. Arthur Le Grand Jacob
Charles James Keene	John Bolster
Lieut.-Col. Havelock Hudson	John Stratheden Campbell
Lieut.-Col. Arthur D'Arcy Gordon Bannerman	Frederick Palmer
Rai Bahadur Gunga Ram	Shrimant Anand Rao Gaekwar
Gopal Krishna Gokhale	Thomas Henry Stillingfleet Biddulph
Robert Douglas Hare	Surgn.-Lieut.-Col. Sir Warren Roland Crooke-Lawless
William Bell	Lieut.-Col. Alexander John Maunsel MacLaughlin
Claude Hamilton Archer Hill	George Claudius Beresford Sterling
Edward Henry Scamander Clarke	Francis St. George Manners-Smith
Webster Boyle Gordon	Major David Melville Babington
James Walker	Sir Chinubhai Madhavlal
Lieut.-Col. Robert Arthur Edward Benn	Samuel Digby
Madhu Sudhan Das	Pazhamarnelli Sundaram Aiyar Sivaswamy Aiyar
George James Perram	Francis Guy Selby
Raja of Kila Partabgarh	Brig.-Gen. William Riddell Birdwood
Sir C. Sankaran Nayar	William Herbert Dobbie
William Nimis Porter	Alfred Hamilton Grant
Stephen Finney	Sao Mawng, K.S.M., Sawbwa of the Shan State of Yawng Hwe
Edward Waller Stoney	Lieut.-Col. John Norman MacLeod
Alexander Monro	Sir Arthur Mitford Ker
Walter Home	Rear-Admiral George Hayley-Hewett
C. W. Waddington	Ralph Buller Hughes-Buller
Raja Rampal Singh of Kori Sadhull	Lieut.-Col. Francis Frederic Perry
Khan Bahadur Barjorji Dorabji Patel	Lt.-Col. Francis Granville Beville
John Claude White	Rai Sahib Diwan Daya Kishen Kaul
Major W. F. T. O'Connor	Lieut.-Col. Stuart Hill Godfrey
Lionel Truminger	Major Denys Brooke Blakeway
Lieut.-Col. Robert Bird	Khan Bahadur Sahlozada Abdul Qalyum Khan
David Bayne Horn	Maung Ba Tu
Lieut.-Col. Charles Brooke Rawlinson	Col. Ernest William Stuart King Macconchy
Richard Grant Peter Purcell McDonnell	William Maxwell
Captain George Wilson	William Ellis Jardine
Commr. Thomas Webster Kemp	Thomas Corby Wilson
William Harrison Moreland	Lieut.-Col. Alfred Horsford Bingley
Edward Smeade Boyd Stevenson	Sir Frederick Loch Halliday
Pirajitrao Bapu Saheb Ghatge	Lt.-Col. Charles Thorp Jessop
Sardar Jallab Khan	Percy Wyndham
Henry Robert Conway Dobbs	Hugh Spencer
Rai Sri Ram Bahadur	Charles Ernest Low
Surg.-Gen. William Richard Browne	Lieut.-Col. Keith David Erskine
Montague de Pomeroy Webb	Cecil Ward Chichele-Plowden
Hugh William Orange	William King-Wood
Lieut.-Col. Charles Archer	Lieut.-Col. Richmond Trevor Crichton
Lionel Maling Wynch	Hkun Lal, Sawbwa of Laihka
Arthur William Uglow Pope	Albert Claude Verrieres
Nicholas Dodd Beatson-Bell	Raja Ram Singh of Rampura
George Frederick William Thibaut	Diwan Bahadur P. Rajagopala Chariar
Col. William Arthur Watson	Maulvi Rahim Baksh
Major Alain Chartier de Lotbiniere Joly de Lotbiniere	Munshi Aziz-ud-din
Major Arthur Francis Ferguson-Davie	Nilambar Mukharji
Major Aubrey John O'Brien	Alfred Thomas Whittle
Herbert Cunningham Clogstoun	Rai Bahadur Kali Prasanna Ghosh
Thomas Robert John Ward	Godfrey Butler Hunter Feil
Brig.-Gen. Sir Rolls Estouteville Grimsstone	John Newlands
Lieut.-Col. Charles Ferguson Campbell	
Lieut.-Col. Harry Davis Watson	
Hon. Derek William George Keppel	
Commander Sir Charles Leopold Cust	

Col. James Henry Elias Beer  
 Lieut.-Col. Henry Parkin  
 Col. Robert Neil Campbell  
 Montagu Sherard Dawes Butler  
 Major Stuart George Knox  
 Capt. Cecil Godfrey Rawling  
 Edgar Thurston  
 Diwan Bahadur Seth Kastur Chand Daga  
 Rai Natthi Mal Bahadur of Churja  
 Rai Bahadur Bala Singh  
 James Bennett Brunyate  
 Frederick James Wilson  
 Henry Wheeler  
 Reginald Edward Enthoven  
 Col. Wilfred Malleson  
 Henry Venn Cobb  
 Reginald Hugh Brereton  
 Nriitya Gopal Basu  
 James Macdonald Law  
 William Lochiel Berkeley Souter  
 Prabasankar Pattani  
 Joseph John Mullaly  
 William Didsbury Sheppard  
 Col. Roderick Macrae  
 Lieut.-Col. Victor Reginald Brooke  
 Oswald Vivian Bosanquet  
 Tanjore Madava Rao Ananda Rao  
 John Hubert Marshall  
 William Arthur Johns  
 Charles Michie Smith  
 Lieut.-Col. Arthur Grey  
 John Barry Wood  
 Lt.-Col. George Grant Brown  
 Col. Ralph Champneys Broomie  
 Col. Frank Goodwin  
 Lieut.-Col. George Frederick Chenevix-Trench  
 Archibald Young Gibbs Campbell  
 Andrew Bigoe Barnard  
 James Adolphus Guide  
 John Paul Warbarton  
 James William Douglas Johnstone  
 Fakir Sayad Iftakhar-ud-din  
 James Herbert Scabrooke  
 Walter Culley Madge  
 Lieut.-Col. Wallace Christopher Ramsay Stratton  
 James Scott  
 Major Edward Charles Bayley  
 Rai Bahadur Lala Sheo Prasad  
 Frederick William Johnstone  
 Maj. Arthur Louis Bickford  
 Edward Gelson Gregson  
 Khan Bahadur Mian Rahim Shah, Kaka Khel  
 William Malcolm Hailey  
 Col. Benjamin William Marlow  
 Herbert Gerald Tomkins  
 Henry Whitby Smith  
 Major Francis Beville Pridcaux  
 Major Arthur Prescott Trevor  
 Lieut.-Col. Ramsay Frederick Clayton Gordon  
 Lieut.-Col. Charles MacTaggart  
 Nawab Mirza Mahfi Husain  
 Rai Kishan Sah Bahadur  
 Hopetoun Gabriel Stokes  
 Lieut.-Col. Leonard Rogers  
 Nawab Abdul Majid  
 Ludovic Charles Porter  
 Henry Shute  
 Arthur Vends  
 Mahamahopadya Hara Prasad Shastri  
 Lt.-Col. Allen McCaughey  
 Nawab Kaiser Khan, Chief of the Magassi  
 Tribe  
 Rai Bahadur Diwan Jamiat Rai

Robert Charles Francys Volkers  
 Henry Hubert Hayden  
 Alexander Muirhead  
 The Maharaj of Sikkim  
 Lieut.-Col. Edulji Palanji Frenchman  
 Alexander Emanuel English  
 George Frederick Arnold  
 Maung Myat Tun Aung  
 George Cunningham Buchanan  
 William Rucker Stikeman  
 Edward Robert Kaye Blenkinsop  
 George Sanky Hart  
 Nawab Muhammad Salamullah Khan Bahadur  
 Jagirdar of Deulghat  
 John Henry Kerr  
 Lieut.-Col. George Henry Evans  
 Major Henry Burden  
 Maharaja Raghunath Singh, of Dhasuk  
 George William Kuchler  
 John Ghest Cumming  
 Rev. John Anderson Graham  
 Francis Hugh Stewart  
 Louis James Kershaw  
 William Taylor Cathcart  
 Manekjee Byramjee Dadabhoy  
 Hugh Murray  
 Sawai Rao Raja Raghunath Rao Dinkar  
 (Gwalior)  
 Pandit Kallas Narayan Haksar  
 Capt. Rudolf Shakespeare Edward Trower Hogg  
 Major Ernest Douglas Money  
 Major Hugh Roderick Stockley  
 Mokshagundam Visvesvaraya  
 Lieut.-Col. Richard Godfrey Jones  
 Jagirdar Desraj Urs  
 Major Armine Buereton Dew  
 Rai Sahib Diwan Amar Nath (Kashmir)  
 Lieut.-Col. James Reed Roberts  
 Lieut.-Col. Lawrence Impey  
 Raja of Kothi  
 Col. Alexander William Macrae  
 Arthur Ernest Lawson  
 Albion Rajkumar Banerji  
 Major Frederick Fenn Elwes  
 Col. William Burgess Wright  
 Cecil Archibald Smith  
 Sardar Shamsheer Singh, of the Jind State  
 Baba Gurbaksh Singh Bedi  
 Col. Gilbert Walter Palin  
 Lieut.-Col. Robert Edward Pemberton Pigott  
 Major William Daniel Henry  
 Gerald Francis Keatinge  
 Major John Glennie Greig  
 Sardar Naoroji Pudanji  
 Vala Laksman Meram Chief of Thana-Devil  
 Claude Alexander Barron  
 Leonard William Reynolds  
 Major Percy Molesworth Sykes  
 Charles Archibald Walker Rose  
 Major Arthur Dennys Gilbert Ramsay  
 Capt. John Mackenzie  
 Pierce Langrishe Moore  
 Alfred Chatterton  
 Major Arthur Abercromby Duff  
 Major John Lawrence William French-Mullen  
 Bernard Coventry  
 Albert John Harrison  
 Richard Hamilton Campbell  
 Rao Bahadur Bangalore Perumal Annaswami  
 Mudallar  
 Sidney Kilner Lovett-Yeats  
 Frederick George Wigley  
 Pratulla Chandra Ray

Col. Francis Raymond  
 Col. Michael Joseph Tighe  
 Lieut.-Col. William Bernard James  
 Major Sydney D'Aguilar Crookshank  
 Edward Denison Ross  
 John Hugh Cox  
 Khan Bahadur Muhammad Israr Hasan Khan  
 Major Reginald O'Bryan Taylor  
 David Wann Alkman  
 Rai Bahadur Pandit Hari Kishan Kaul  
 Lieut.-Col. Frederick William Wodchouse  
 Col. Richard Henry Ewart  
 Col. Maitland Cowper  
 Thomas Walker Arnold  
 Lieut.-Col. Charles Henry James  
 Rana Hira Singh of Dhani  
 Alexander Blake Shakespear  
 John Hope Simpson  
 Major Hugh Stewart  
 Major William Glen Liston  
 Lieut.-Col. Edwin Henry de Vere Atkinson  
 Walter Stanley Talbot  
 Frank Adrian Lodge  
 Col. Robert William Layard Dunlop  
 Lieut.-Col. Walter James Buchanan  
 Hrish Kesh Laha  
 Nailini Kesh Laha  
 Nailini Bhusan Gupta  
 Joseph Terence Owen Barnard  
 Lieut.-Col. Towalek Richard Filgate  
 Alexander Macdonald Rouse  
 Charles Cahill Sheridan  
 Capt. Herbert de Lisle Pollard-Lowsley  
 Major William Wilfrid Bickford  
 Lieut.-Col. John George Knowles  
 Major George Dodd  
 Henry Cuthbert Streatfeild  
 Major Cecil Kaye  
 William Foster  
 Lt.-Col. Appaji Rao Ankhar  
 W. H. Arden-Wood  
 Sardar Arur Singh  
 W. C. Ashmore  
 Major Blackham  
 P. R. Cadell  
 Capt. W. L. Campbell  
 Major G. S. Crawford  
 W. C. M. Dundas  
 Lt.-Col. V. N. Hickley  
 H. F. Howard  
 J. H. Lace  
 L. Mercier  
 Bhupendra Nath Mitra  
 A. P. Muddiman  
 J. R. Pearson  
 Sheo Shankar Sahay  
 H. L. Stephenson  
 Major M. B. St. John  
 J. H. Stone  
 Abanindra Nath Tagore  
 Major G. K. Walker  
 C. C. Watson

OFFICERS OF THE ORDER.  
*Secretary*, Lieut.-Col. Sir A. H. McMahon  
*Registrar*, Col. Sir Douglas Dawson

### The Imperial Order of the Crown of India.

This Order was instituted Jan. 1, 1878, and for a like purpose with the simultaneously created Order of the Indian Empire. It consists of the Queen and Queen Mother with some Royal Princesses, and the female relatives of Indian Princes or of persons who have held

conspicuous offices in connection with India. Badge, the royal cipher in jewels within an oval, surmounted by an Heraldic Crown and attached to a bow of light blue watered ribbon, edged white. Designation, the letters C. I.

#### Sovereign of the Order.

#### THE KING-EMPEROR OF INDIA.

#### Ladies of the Order (C. I.)

Her Majesty The Queen  
 H. M. Queen Alexandra  
 H. M. the Queen of Norway  
 H. R. H. the Princess Royal  
 H. R. H. the Princess Victoria  
 H. R. H. the Princess Christian of Schleswig-Holstein  
 H. R. H. the Princess Louise (Duchess of Argyll)  
 H. R. H. Princess Henry of Battenberg  
 H. I. and R. H. the Dowager Duchess of Saxe-Coburg and Gotha  
 H. R. H. the Duchess of Connaught  
 H. R. H. the Duchess of Albany  
 H. R. H. the Duchess of Cumberland  
 H. R. H. the Princess Frederica Baroness of von Pawl-Rammingen  
 H. R. H. the Dowager Grand Duchess of Mecklenburg-Strelitz  
 H. R. H. the Princess Ferdinand of Roumania.  
 H. I. and R. H. the Grand Duchess Cyril of Russia  
 H. R. H. the Hereditary Princess of Hohenzollern-Langenburg  
 H. R. H. the Crown Princess of Sweden  
 H. R. H. the Princess Patricia of Connaught  
 H. R. H. the Princess Victoria Elizabeth Augustine Charlotte, Hereditary Princess of Saxe-Meiningen  
 H. H. the Princess Victoria of Schleswig-Holstein  
 H. H. the Princess Marie-Louise of Schleswig-Holstein  
 Baroness Kinloss  
 Dowager Countess of Mayo  
 Mrs. Charles Coates  
 Lady Jane Emma Crickton  
 Dowager Countess of Lytton  
 Dowager Baroness Lawrence  
 Lady Temple  
 Dowager Baroness Napier of Magdala  
 Lady Grant Duff  
 Dowager Marchioness of Lufferrin and Ava  
 Mrs. George Cornwallis-West  
 Baroness Reay  
 H. H. Maharani of Cooch Behar  
 Marchioness of Lansdowne  
 Baroness Harris  
 H. H. Maharani of Gwalior  
 Constance Mary Baroness Wenlock  
 H. H. Maharani Sahib Chhima Bai Gaekwar  
 H. H. Rani Sahib of Gondal  
 H. H. the Dowager Maharani of Mysore  
 Lady George Hamilton  
 H. H. the Maharani Sahiba of Udaipur  
 Alice, Baroness Northcote  
 Nora Henrietta, Countess Roberts  
 Amelia Maria, Lady White  
 Mary Katherine, Lady Lockhart  
 Baroness Amphil  
 Countess of Minto  
 Baroness Hardinge of Penshurst  
 Marchioness of Crewe  
 H. H. Begum of Bhopal  
 H. H. Maharani Shri Nundkanwarba

## THE KAISAR-I-HIND MEDAL.

This decoration was instituted in 1900, the preamble to the Royal Warrant—which was amended in 1901 and 1912—being as follows:—"Whereas We, taking into Our Royal consideration that there do not exist adequate means whereby We can reward important and useful services rendered to Us in Our Indian Empire in the advancement of the public interests of Our said Empire, and taking also into consideration the expediency of distinguishing such services by some mark of Our Royal favour: Now for the purpose of attaining an end so desirable as that of thus distinguishing such services aforesaid, We have instituted and created, and by these presents for Us, Our Heirs and Successors, do institute and create a new Decoration." The decoration is styled "The Kaisar-i-Hind Medal for Public Service in India" and consists of two classes. The Medal is an oval shaped Badge or Decoration—in gold for the First Class and in silver for the Second Class—with the Royal Cypher on one side and on the reverse the words "Kaisar-i-Hind for Public Service in India." It is suspended on the left breast by a dark blue ribbon.

### Recipients of the 1st Class.

Adamji Pirbhai, Sir  
Abdus Samad Khan of Rampur  
Allnut, The Rev. Samuel Scott  
Amarchand, Rao Bahadur Ramnarayan  
Amphill, Margaret, Baroness  
Ashton, Albert Frederick  
Bahram Khan, Mehtarjao, of Kandahar  
Barber, Benjamin Russell  
Barnes, Major Ernest  
Barton, Edward Golding  
Beatty, Francis Monagu Algernon  
Beck, Miss Emma Josephine  
Benson, Lady  
Bikanir, Maharaja of  
Bingley, Lieutenant-Colonel Alfred  
Bonig, Max Carl Christian  
Booth-Tucker Frederick St. George de Lautour  
Bosanquet, Oswald Vivian  
Bose, Dr. Kallash Chandra  
Bramley, Percy Brooke  
Bray, General Denis DeSaumarez, in Baluchistan  
Broadway, Alexander  
Brunton, James Forest  
Buchanan, Rev. John  
Burn, Richard  
Burnett, General Sir Charles John  
Calnan, Denis  
Campbell, Lieutenant-Colonel Robert Neil  
Campion, John Montrieux  
Chandra, Rai Bahadur Hari Mohan  
Chatterton, Alfred  
Chaudhuri, Babu Sarat Chandra Rai  
Chinnai, Sardar Dineshji  
Chitnavis, Shankar Madho  
Coxley, Mrs. Alice  
Cooke, Major General Thomas Arthur  
Cousens, Henry  
Cowasjee, Marwanjee  
Cox, Arthur Frederick  
Crawford, Francis Colomb  
Dane, Lady  
Darbhanga, Maharaja of  
Davies, Mrs. Edwin

Dawson, Lieutenant-Colonel Charles Hutton  
Deane, Lieutenant-Colonel Herbert Edward  
deKostka, The Revd. Mother Marie  
deLotbiniere, Lieutenant-Colonel Alain C. Joly  
Dewas (Junior Branch), Raja of  
Douglas, James  
Dyal Singh, Sardar Man, Sardar Bahadur  
DuBern, James Emile  
Dyson, Lieutenant-Colonel Thomas Edward  
Earle, The Hon'ble Sir Archdale  
Egerton, William  
Ewing, The Rev. Dr. J. C. R.  
Firsh, Mrs. E. J. (with Gold Bar)  
Ghosal, Mr. Jyotsnanath  
Glazebrook, N. S.  
Graham, The Rev. John Anderson  
Grattan, Major Henry William  
Guilford, The Rev. E.  
Gwallor, Maharaja of  
Gwyther, Major Arthur  
Hahn, The Rev. Ferdinand  
Haig, Lieutenant-Colonel Patrick Balfour  
Hall, Harold Fielding Patrick  
Hamilton, Major Robert Edward Archibald  
Harvest, Major Herbert de Vere  
Hardinge, Winifred Selina  
Hickie, Edward George  
Hildesley, The Rev. Alfred Herbert  
Hill, Rowland  
Hodgson, Edward Marsden  
Holderness, Sir Thomas William  
Home, Walter  
Howard, Mrs. Gabrielle Louise Caroline  
Hume, The Rev. R. A.  
Humphreys, Robert  
Hutchinson, Sir Sydney Hutton Cooper  
Hutchinson, Captain William Gordon  
Hutwa, The Maharani Jnan Manjari Kuori of  
Hydari, Mrs. Amina  
Irvine, Lieutenant-Colonel Thomas Walter  
Ismail, Muhammad Yusuf  
Ives, Harry William Maclean  
Jacob, Colonel Sir Samuel Swinton  
James, Lieutenant-Colonel Charles Henry  
Jankibai  
Joshi, Ram Bhaun Meghasham, Rao Bahadur  
Jwala Parshad, Pandit  
King, Mrs. D.  
Kirkpatrick, Clarence  
Klopsch, Dr. Louis  
Ko, Taw Sein  
Kothari, The Hon'ble Mr. Jchangir Hormusji  
Lamb, The Hon'ble Sir Richard Amphlett  
Lindsay, D'Arcy  
Ling, Miss Catharine Frances  
Lovett, The Hon'ble Mr. Harrington Verney  
Luck, Wilfred Henry  
Lyall, Frank Frederick  
Lyons, Colonel Robert William Steele  
Maclean, Sir Francis William  
Macwatt, Lieutenant-Colonel Robert Charles  
Madhava Rao, Vishwanath Pattankar  
Madhavan Nair, M. R. Ry. T. Avergal  
Mahdi Husain, Nawab Mirza  
Malabari, Behramji Mehrvanji  
Malegaon, Raja of  
Manners-Smith, The Hon'ble Mr. Francis  
St. George  
Manning, Miss E. A.  
Mary of St. Paula, Rev. Mother  
Mayes, Herbert Frederick  
McCarrison, Major Robert

McCloghry, Colonel James  
 Miller, The Rev. William  
 Minto, Mary Caroline  
 Mir Abdulali, Sardar  
 Mitra, Dr. A.  
 Morgan, George  
 Morrison, Honorary Captain James  
 Mudliar, Sardar Coopswamy Vizianagram  
 Muhammad Aziz Mirza, Maulvi  
 Muir Mackenzie, Lady Thérèse  
 Murray, George Ramsay  
 Naidu, Mrs. Surojini  
 Nanak Chand  
 Nariman, Dr. Temulji Bhikaji  
 Neve, Dr. Arthur  
 Nisbet, John  
 Noyce, William Florey  
 Oldham, Charles Evelyn Arbuthnot William.  
 O'Meara, Major Eugene John  
 O'Donnel, Dr. Thomas Joseph  
 Oswell, G. D.  
 Pandit, Sitaram Narayan  
 Pitcher, Colonel Duncan George  
 Plant, Captain William Charles Trew Gray  
 Gambier  
 Poynder, Lieutenant-Colonel John Leopold  
 Ravi Varma, Kail Tamburan  
 Reid, Frederick David  
 Reynolds, Leonard William  
 Rondy, The Very Rev. The Abbe Noel  
 Rost, Major Ernest Reinhold  
 Row, Dr. Raghavendra  
 Roy, Babu Harendra Lal  
 Roy, Rao Jogendra Narayan  
 Sallana, Raja of  
 Sell, The Rev. Canon Edward  
 Scemple, Lieutenant-Colonel Sir David  
 Sewell, The Rev. J.D.W., S.J.  
 Samthar, Maharaja of  
 Sharp, Henry  
 Sheppard, Mrs. Adeline B.  
 Sheppard, William Didsbury  
 Shore, Lieutenant-Colonel Robert  
 Shoubridge, Major Charles Alban Grevis  
 Singh, Raja Bhagwan Bakhsh  
 Singh, Raja Kamaleshwari Pershad  
 Sinha, Purnendra Narayan  
 Skrefsrud, The Rev. Larsorsen  
 Smith, Lieutenant-Colonel Henry  
 Sorabji, Miss Cornelia  
 Spence, Christina Philippa Agnes  
 Sri Ram  
 Stanes, Robert  
 Stark, John Theodore Roebuck  
 Stewart, Robert Barton  
 Subramanyam  
 Sukhdeo Prasad, Pandit  
 Talati, Edalji Dorabji  
 Tarvadi, Lalshankar Umashankar  
 Taylor, The Rev. George Pritchard  
 Taylor, Dr. Herbert F. Lechmere  
 Thomas, The Rev. Stephen Sylvester  
 Thu, Maung Re Gyaw  
 Thurston, Edgar  
 Tilly, Harry Lindsay  
 Tucker, Major William Hancock  
 Turner, Dr. John Andrew  
 Tyndale-Biscoe, The Rev. Cecil Earle  
 Tyrrrell, Captain Jasper Robert Joly  
 Vaughan, Lieutenant-Colonel Joseph Charles  
 Stelke  
 Venkatarama Krishnaswami Aiyar  
 Venugopala, Raja Bahadur

Wake, Lieutenant-Colonel Edward St. Aubyn  
 Wakefield, George Edward Campbell  
 Walker, Lady Fanny  
 Walsh, John  
 Walter, Major Albert Elijah  
 Ward, Major Ellacott Leamon  
 Wheeler, The Rev. Edward Montague  
 Whittton, The Rev. David  
 Wilkins, Lieutenant-Colonel James Sutherland  
 Wilkinson, Lieutenant-Colonel Edmund  
 Wilson-Johnston, Joseph  
 Winter, Edgar Francis Latimer  
 Wood, Arthur Roberts  
 Young, The Rev. John, Cameron  
 Youngusband, Arthur Delaval  
 Youngusband, Lieutenant-Colonel Sir Francis  
 Edward

### Recipients of the 2nd Class.

Abul Fattah, Mouvi Saiyed  
 Abdul Ghani  
 Abdul Hussain, Mian Bhai  
 Abdul Kadar  
 Abdul Majid Khan, Colonel Muhammad  
 Abdul Majid Khan  
 Abdul Rahman, Mahommed  
 Abdul Rahim  
 Abdur Kazzak Khan, Subadar  
 Adavani, Motiram Showkram  
 Agha Mohamed Khalil-Bin-Mohamed Karim  
 Ali Shabash, Shaikh  
 Amar Nath, Lala  
 Amar Singh  
 Anderson, Andrew  
 Andrew, The Rev. Adam  
 Anscomb, Major Allen Mellers  
 Arte, Hari Narayan  
 Askwith, Miss Anne Jane  
 Augustin, The Rev. Father.  
 Aziz Husain, Khan Sahib Mjr  
 Aziz-Ul-Esan, Mufti  
 Badri Parshad  
 Bahmanji Mancharji  
 Baker, Captain Thomas  
 Balwant Singh, Sardar Sahib  
 Banerji, Professor Jaminil Nath  
 Banks, Dr. Charles  
 Bapat, Ralsaladar Sadashiva Krishna  
 Bardsley, Miss Jane Blissett  
 Bartholomeusz, Lieutenant-Colonel Mathew  
 Lorenz  
 Bayley, Major Edward Charles  
 Beaton-Bell, Nicholas Dodd  
 Beg, Mirza Kalich Beg Fridun  
 Beville, Lieutenant-Colonel Francis Granville  
 Bhajan Lal  
 Bhate, Pandit Balkrishna Govind  
 Bhude, Raoji Janardhan  
 Bisheshwar Nath, Lala  
 Biswas, Babu Ananda Mohan  
 Blackham, Major Robert James  
 Blackwood, John Ross  
 Blake, The Rev. William Henry  
 Bland, Miss Sophia  
 Blenkinsop, Edward Robert Kaye  
 Bolster, Miss Anna  
 Bonnar, The Rev. William  
 Borrah, Babu Bollnara, an  
 Bowen, Griffith  
 Brahmanand, Pandit  
 Branch, Miss E.  
 Brander, Miss Isabel  
 Bremner, Major Arthur Grant

Brough, The Rev. Anthony Watson  
 Browne, Charles Edward  
 Brown, Dr. Edith  
 Burt, Bryce Chudleigh  
 Cain, Mrs. Sarah  
 Campbell, The Rev. Andrew  
 Campbell, Miss Kato  
 Campbell, Miss Susan  
 Campbell, The Rev. Thomas Vincent  
 Cardoz, Diogo  
 Carr, Miss Emma  
 Carr, Thomas  
 Catherine, Sister  
 Catted, Major Gilbert Landale  
 Cecilia, Sister Fannie  
 Chakravarti, Babu Gopal Chandra  
 Chamberlain, The Rev. William Isaac  
 Chandler, The Rev. John Scudder  
 Chatterji, The Rev. K.C.  
 Chhote Lal, Pandit  
 Chitale, Ganesh Krishna  
 Choksl, Dosabhoj Ardeskar  
 Chye, Leong  
 Clancey, John Charles  
 Clerke, Honorary Major Louis Arthur Henry  
 Clutterbuck, Peter Henry  
 Correa, Miss Marie  
 Corthorn, Miss Alice  
 Coxon, Stanley William  
 Cumming, James William Nicol  
 Cummings, The Rev. John Ernest  
 Cutting, Rev. William  
 Dada, Bapu Rao  
 Dalrymple-Hay, Charles Vernon  
 Das, Ram, Lala  
 Das, Mathura, Lala  
 Das, Niranjan  
 Datta, D. Dina Nath Pritha  
 Dawe, Miss Ellen  
 Dawson, Mrs. Charles Iffton  
 Deb, Raja Binaya Krishna  
 Deogl, Hazi Ahmed, Khan Sahib  
 deKantzow, Mrs. Mary Aphrasia  
 Desmond, Sergeant J.  
 Dewes, Lieutenant-Colonel Frederick Joseph  
 Dhanpatral, Sardar Bahadur  
 Dharm Chand, Lala  
 Dip Singh, Lieutenant  
 Douglas, The Rev. John  
 Dun, Maung Ne  
 Dundas, Charles Lawrence  
 Dunlop, Alexander Johnstone  
 Durjan Singh, Thakur  
 Eaglesome, George  
 Edgell, Lieutenant-Colonel Edward Arnold  
 Emanuel, Mrs.  
 Evans, The Rev. John Cordig  
 Evans, Miss Josephine Annie  
 Farrer, Miss Ellen Margaret  
 Farzand-i-Ahmad, Khan Bahadur, Kazi  
 Fereynet, The Rev. Father Etienne  
 French, Lieutenant-Colonel Thomas  
 Fletcher, Miss  
 Forman, The Rev. Henry  
 Fox, Alfred Charles  
 Frances, Sister Jane  
 Fraser, William  
 Gajanand, Raghunath  
 Garthwaite, Liston  
 George, Miss Jessie Eleanor  
 Godfrey, Thomas Leonard  
 Goenka, Balnath  
 Goodbody, Mrs.

Gorman, Patrick James  
 Goswami, Sri Sri Naradev Dakhinpat Adhikar  
 Grant, Major John Weyms  
 Grant, Mrs., nee Miss Lillian Blong  
 Gray, Commissary William David  
 Greany, Peter Mawc  
 Greenfield, Miss R.  
 Gressen, Albert Edward Pierre  
 Gulzad, Mackertish  
 Gumbley, Mr. Douglas  
 Gune, Trimbak Raghunath  
 Gyl, Ma Ma  
 Halyati Inabh Malik  
 Hanrahan, W. G.  
 Harrison, Henry  
 Harrison, Robert Tullis  
 Hart, Miss Louisa  
 Harvey, Miss Rose  
 Hatch, Miss Sarah Isabella  
 Haworth, Major Lionel Berkeley Holt  
 Hayes, Miss Mary Lavinia  
 Henderson, Miss Agnes  
 Henderson, Mrs. Alice Robert  
 Hewlett, Miss I.  
 Hewlett, Miss Sarah Secunda  
 Higby, Miss Sarah J.  
 Higgins, Andrew Frank  
 Hill, Elliott  
 Hira Singh, Chaudhari  
 Hoffman, The Rev. Father John, S.J.  
 Holbrooke, Major Bernard Frederick Roper  
 Holden, Major Hyla Napier  
 Holland, Dr. Henry Tristram  
 Hughes, Thomas Onslow  
 Hunter, Honorary Captain James  
 Husan Ali  
 Jainath, Pandit  
 Joglekar, Rao Sahib Ganesh Venkatesh  
 Johnson, Augustus Frederick  
 Jones, The Rev. John Peter  
 Jones, The Rev. Robert  
 Joshi, Trimbak Waman  
 Joss, Miss F.  
 Joti Prasad, Lala  
 Judd, C. R.  
 Jwala Prasad, Mrs.  
 Jwala Singh, Sirdar  
 Kanow, Yasuf  
 Kapadia, Miss Motibai  
 Karandikar, Azam Vishwanth Japardan  
 Karve, Dhando Keshav  
 Kastur Chand Daga, Seth, Sir.  
 Kelavkar, Miss Krishnabai  
 Kelly, Miss Eleanor Sarah  
 Ker, Thomas  
 Khujoorina, Nadirshah Nowrojee  
 Kidar Nath, Lala  
 King, Robert Stewart  
 Knight, Honorary Captain Richard Francis  
 Knollys, Major Robert Walter Edmond  
 Knox, Major Robert Welland  
 Ko, U.  
 Kothewala, Mulla Yusuf Ali  
 Kreyer, Lieutenant-Colonel Frederick August  
 Christian  
 Kugler, Miss Sarah Anna  
 Kyaw, Maung  
 Lang, John  
 Langhorne, Frederick James  
 Lankester, Dr. Arthur Colborne  
 Lawrence, Henry Staveley  
 Leslie-Jones, Leicester Hudson  
 Lobo, Honorary Captain Julius Augustus



Locke, Robert Henry	Parbati Bai, Mussammat
Lohr, Julius	Park, The Rev. George W.
Low, Charles Ernest	Parsons, Richard
Lund, George	Parsons, Ronald
MacAlister, The Rev. G.	Parsons, W.
Mackenzie, Alexander McGregor	Patel, Barjorji Dorabji
Mackenzie, Howard	Patel, Jeona
Mackinnon, Miss Grace	Pathak, Vithal Narayan
Macleod, Major John Norman	Pattack, Ram Sanaï
Mackellar, Dr. Margaret	Paterson, Miss Rachel
Macphail, The Rev. James Merry	Perroy, Rev. Father
Macphail, Miss Alexandrina Matilda	Pennell (nee Sorabji), Mrs. Alice Maude
Madan, Mr. Rustamji Hormasji	Peters, Lieutenant-Colonel Charles Thomas
Maddox, Lieutenant-Colonel Ralph Henry	Phailbus, Miss Rose Margaret
Mahadevi, Srimati	Pierce, Miss Ada Louise
Mahommed Allanur Khan	Pillay, Chinnappa Singaravallu
Mahtab-ud-din	Pinney, Major John Charles Digby
Mal Thai Bai	Pinto, Miss Preciosa
Maitra, Babu Bhuban Mohan	Plowden, Major Trevor Chichele
Maracan, Esmail Kadir	Po O, Maung
Margoschis, The Rev. A.	Po Tok, Maung
Marie, Sister	Pribhdas Shevakram
Mary, of St. Vincent, Sister	Prideaux, Frank Winckworth Austice
McCowen, Oliver Hill	Purshotamdas Thakurdas
McCready, David Alfred	Pyo, Maung Tet
McGregor, Duncan	Raikes, Mrs. Alice
Mitcheson, Miss	Rait, Miss Helen Anna Macdonald
Mitra, Rajeswar	Raj Bahadur, Pandit
Mitter, Mrs.	Ram, Mr. Bhagat
Moore, Nursing Sister Dora Louisa Truslove	Ramchandra, Daji
Moore, Miss Eleanor Louisa	Ramgopal, Mallani, Seth
Norris, Major Robert Lee	Ram Singh M.V.O.
Mount, Lieutenant Alan Henry	Ranade, Mrs. Ramabal
Moxon, Miss Lals	Ranjit Singh
Mozumdar, Jadu Nath	Rattansi Mulji
Mubarak Ali, Muhammad	Ray, Harendra Nath
Mudaliar, Arcot Maigandadeva	Ray, Babu Sarat Chandra
Mudali; Valappakkam Daivasigomoni Thandavarayan	Raza Ali Khan, Sardar
Mudaliar, Bangalore Perumal Annaswami	Roberts, Captain Charles Stuart Hamilton
Muhammad Yusuf, Shams-ul-Ulama, Khan Bahadur	Robinson, James
Muller, The Rev. Father Augustus	Robinson, Lieutenant-Colonel William Henry Bannor
Munier, Osvald Valdemar	Roe, Lieutenant-Colonel Cyril Harcourt
Munye, Krishna Rao	Roe, Mrs. Edith Mary
Murli Dhar	Roshan Lal, Lala
Myat, Maung Htoon	Rukmabal, Dr.
Nabi Baksh	Rustomji Faridoonji
Nag, Mrs. Sasi Mukhi	Sahan Ram Kali
Nalmullah, Mohamed	Sahay, Lala Deonath
Napier, Alan Bertram	Sala-ud-Din, Shaikh
Narayana Aiyar, Pichu Aiyar	Salkield, Tom
Narayan Pershad, Babu	Samarth, Wasudeo Mahadeo
Nariman, Lieutenant-Colonel Kaikhasro Sorabji	Samuels, Joseph
Nariman, Khan Bahadur Manekji Kharsedji	Sarkar, Babu Nolin Behari
Narpat Singh, Babu	Sarkar, Babu-Parbati Charan
Nasrulla Khan, Mirza	Schultze, The Rev. Frederick Volkmar Paul
Nathu Mall, Lala	Scotland? Lieutenant-Colonel David Wilson
Nawaz Khan, Usman	Shah, Babu Lal Behari
Norris, Miss Margaret	Shah, Mohamad Kamal, Salyid
O'Brien, Major Edward	Shah, Mohammad Nawaz
O'Connor, Brian Edward	Shamnath
O'Hara, Miss Margaret	Sheore, Raghunath Balwant
Old, Frank Shepherd	Shepherd, The Rev. Ames
Orman, Honorary Captain Charles Henry	Shewell Major Arthur Poole
Orr, Adolphe Ernest	Shinde, The Rev. Kesari Prasad
Orr, James Peter	Shyam Rikh, Raja Francis Xavier
Outram, The Rev. A.	Shyam Sunder Lall
Owen, Captain Robert James	Simeox Arthur Henry, Addenbrooke
Owen, C. B.	Simkins, Charles Watkins
Pal, Babu Baroda Sundar	Simon, Sister M.
Pandit, Vasudeo Ramkrishna	Sinclair, Reginald Leahy
	Singh, Apji Dhul
	Singh, Babu Harnath

Singh, Makkhan  
 Singh, Raja Bahadur, Padmanand  
 Singh, Babu Ramdhari  
 Singhi, Sitla Baksh  
 Singhi, Santokh, Kurmi  
 Singh, Subadar, Sher  
 Smith, Miss Ellen  
 Smith, The Rev. Frederick William Ambery  
 Smith, Mrs. Henry  
 Soghra, Bibi  
 Sommerville, The Rev. Dr. James  
 Sri Ram Kunwar, Thakurain  
 Starte, Oliver Harold Baptist  
 Steele, The Rev. John Ferguson  
 Stephens, John Hewitt  
 Stevens, Mrs. (Ethel)  
 Stevenson, Surgeon General Henry Wickham  
 Stewart, Major Hugh  
 Stewart, Mrs. Lillian Dorothea  
 Stewart, Thomas  
 St. Joseph, J. D.  
 Strip, Samuel Algernon  
 Sultan Ahmed Khan  
 Sunder Lal  
 Surebhan Janji  
 Swainson, Miss Florence  
 Talcayarkhan, Mr. Manekshah Cawasha

Talib Mehdi Khan, Malik  
 Tambe, Dr. Gopal Rao Ramchandra  
 Tarapurwalla, Fardunji Kuvargi  
 Taylor, Rev. Alfred Pridcaux  
 Taylor, Mrs. Florence Pridcaux  
 Taylor, John Norman  
 Theobald, Miss  
 Timothy, Samuel  
 Thompson, R. C.  
 Tok, Maung, Ba  
 Thorn, Miss Bertha  
 Tomkins, Lionel Linton  
 Umar Khan, Malik Zorawar Khan  
 Umed Ali  
 Valavalkar, P. Baburao  
 Visvesvaraya, Mokshagundam  
 Wajid Hosain, Sayid  
 Wakefield, George Edward Campbell  
 Wanless, Dr. William James  
 Weir, Henry  
 Wildman, Miss Elizabeth Ennie  
 Wiseman, Honorary Captain Charles, Sheriffe  
 Woerner, Miss Lydia  
 Wood, The Rev. A.  
 Yerbury, Miss J.  
 Young, Dr. M. Y.  
 Zahur-ul-Ilusain, Muhammad

### INDIAN NAMES AND TITLES.

There is a bewildering multiplicity of Indian titles, made all the more difficult inasmuch as there is a difference of nomenclature between the titles of Hindus and Mahomedans. Some titles are hereditary and represent ruling chiefs or those nominally such (and of these there are no less than some 620, whilst of the titles themselves some 200 are known); others are personal honours conferred on individuals by the Indian Government, and even then sometimes made hereditary. Yet again, there are numerous complimentary titles, or specifications of office, expressed in Hindu phrases, of which we have occasionally supplied the interpretations. It must be added that though *caste* is often figuring in the names it has nothing whatever to do with the titles. Amir, Khan, Mir, Sultan, Sri, &c., are confusingly used as both titles and names.

The order of rank is thus given by Sir R. Lethbridge in "The Golden Book of India."

*Hindu*—Maharaja Bahadur, Maharaja, Raja Bahadur, Raja, Rai Bahadur, Rai Saheb, Rai.

*Mohammedan*—Nizam, Nawab Bahadur, Nawab, Khan Bahadur, Khan Saheb, Khan.

*Parais and Bene-Israelites*—Khan Bahadur, Khan Saheb.

*Assur*—a corruption of the English "officer."

*Ahluwalia*—name of a princely family resident at the village of Ahlu, near Lahore.

*Akhundzada*—son of a Head Officer.

*Atijah* (Sindhi)—of exalted rank.

*Ali Raja*—See King (Laccadives).

*Amir* (corruptly *Emir*)—Mohammedan Chief; often also a personal name.

*Asaf*—a Minister.

*Baba*—lit. "father;" "a respectful "Mr.;" Irish "Your Honour."

*Babu*—strictly a 5th or still younger son of a Raja, but often used of any son younger than the heir, whilst it has also grown into a term of address—Esquire. There are, however, one or two Rajas whose sons are known respectively as—1st, Kunwar; 2nd, Diwan; 3rd, Thakur; 4th, Lal; 5th, Babu.

*Bahadur*—lit. "brave" or "warrior;" a title used by both Hindus and Mohammedans, often bestowed by Government; added to other titles it increases their honour, but alone it designates an inferior ruler.

*Bakhshi*—a revenue officer or magistrate.

*Begum* or *Begam*—the feminine of "Nawab," combined in Bhopal as "Nawab Begum."

*Besar*—apparently a large land-owner.

*Bhonsle*—name of a Maratha dynasty.

*Bhup*—title of the ruler of Cooch Behar.

*Bhuvti*—name of a Baluch tribe.

*Chhatrapati*—one of sufficient dignity to have an umbrella carried over him.

*Dada*—lit. "grandfather" (paternal); any venerable person.

*Daula* and *Daulat*—State; also one in office.

*Deb*—a Brahminical priestly title; taken from the name of a divinity.

*Dhira*—"Lord of the Lands;" added to "Raja" &c., it means "paramount."

*Diwan*—a Vizier or other First Minister to a native Chief, either Hindu or Mohammedan, and equal in rank with "Sardar," under which see other equivalents. The term is also used of a Council of State.

*Elaya Raja*—title given to the heir of the Maharaja of Travancore.

*Farzand* (with defining words added)—"favourite" or "beloved."

*Fateh*—"victory."

# Chronicle of the year 1913.

## JANUARY.

1st.—The New Year's Honours List was published. There were created one G.C.I.E. (Nawab of Tonk); two K.C.I.E. (Sir George Barclay and General Sir James Willocks) and seven C.S.I.; one G.C.I.E. (Raja Bahadur of Pudukottai); five K.C.I.E., 24 C.I.E.; 8 Knights, one Baronet (Sir Chinubhai Madhavai of Ahmedabad.)

The Delhi Police offered Rs. 50,000 for the arrest of the bomb-thrower in the outrage against the Viceroy at the Delhi State Entry on Dec. 23.

2nd.—Home New Year's Honours List reported in India. Sir George Sydenham Clarke, Governor of Bombay, was created a Peer (Lord Sydenham).

3rd.—Miss Mario Hall gave, in Bombay Town Hall, the first of a series of violin recitals in India.

Details published of the initial construction work in connection with the great project for improving the Bombay water-supply by duplicating the aqueduct from Tansa Lake.

4th.—First meeting after new elections of the Punjab and Madras Legislative Councils. Resolutions were passed condemning the Delhi outrage.

The announcement was published that the Government of India would suspend sales of certified opium until a clearance of the accumulated stocks in China could be effected.

Appointment gazetted of Mr. Meikie as first Government Actuary to be appointed under new Life Assurance Companies Act.

6th.—First meeting after new elections of the Bombay Legislative Council. The Hon. Sir P. M. Mehta expressed the Council's congratulations to H. E. the Governor upon his elevation to the Peerage. The Bill to amend the Bombay Land Revenue Act of 1879, the Khoti Settlement Act of 1880 and the Gujarat Talukdars' Act of 1888 and to repeal the Bombay Record and Rights Act of 1903 was read a first time.

7th.—A crowded public meeting presided over by H. E. the Governor was held at the Bombay Town Hall and resolutions passed expressing abhorrence of the attempt on the lives of Their Excellencies the Viceroy and Lady Hardinge at Delhi; thankfulness for their escape and admiration for the courage they displayed.

In the Bombay Legislative Council Bills to amend the Bombay District Police Act, to amend the Court of Wards Act and further to amend the Bombay Port Trust Act were read a first time.

8th.—The Royal Commission to enquire into Indian Public Services commenced their sittings in Madras. Lord Islington, the Chairman, explained in a speech the course of proceedings contemplated.

10th.—The appointment of Lord Willingdon to be Governor of Bombay was announced.

13th.—Lieut. Clark, I.S.M.S., and Mrs. Fulham were committed for trial at Agra on the charge of murdering Mrs. Fulham's husband.

15th.—Public meeting of the ladies of Bombay to adopt an address to Lady Hardinge expressing horror at the attempt upon the lives of Their Excellencies at Delhi and high appreciation of the unflinching courage shown by Her Excellency in the terrible ordeal. Lady Sydenham presided and announced a scheme for meetings of ladies throughout India in association with a general movement to sign the address.

20th.—H. E. the Governor of Bombay arrived at Karachi at the commencement of a tour in Sind.

First meeting of the Bengal Legislative Council. The Hon. Mr. Surendranath Banerjee moved a resolution expressing horror and detestation at the Delhi outrage against the Viceroy.

21st.—The Naval Correspondent of the *Daily Telegraph* in an article headed "India and Naval Defence" referred to discussions between the India Office and the Indian Government regarding a suggested Indian contribution to the Royal Navy and urged that such a contribution should be made.

24th.—Public Services Commission commenced its sittings in Calcutta.

26th.—The Government of Bombay issued a resolution approving the establishment of a permanent famine fund for the Bombay Presidency and the institution of a permanent committee to administer it.

The Bombay University Senate carried a resolution abolishing the Previous Examination.

27th.—The Imperial Legislative Council met for the first time after the new elections. H. E. the Viceroy presided, thus making his first public appearance since the attempt on his life on Dec. 23. Lady Hardinge occupied a seat in the Council Chamber. His Excellency made a notable speech in reference to the outrage. He declared that he would pursue without deviating one hair's breadth the policy he had followed during the past two years and appealed to the Indian public to stamp out the fungus growth of terrorism in their midst. Sir Gangadhar Chitnavis and Mr. Charles Armstrong expressed the gratification of the Council to see His Excellency well again. After His Excellency had left the Council Chamber, which he did at an early stage of the meeting, the attention of the Police was called to the presence in the Council Chamber of a shabbily dressed Indian stranger. He was taken into custody and proved to be a lunatic who had previously been in Government Service.

28th.—Bombay Port Trust annual Harbour Inspection.

30th.—The story was published of information being given to the Karachi Police of the discovery of bomb making materials in a temple garden. The temple was raided by a strong force of Police and suspects arrested. The story afterwards proved to be a hoax, probably made in the hope of obtaining a reward.

31st.—Reports becoming available at Karachi showed that the Police had been badly hoaxed by the story of bomb materials hidden in the temple.

FEBRUARY.

2nd.—A conflagration broke out at Tatta, Sind. It raged three days and over 100 houses, mostly from three to six storeys, were reduced to ashes.

3rd.—Special Government of India Committee met at Delhi to judge designs for residences in the new capital.

4th.—Mr. S. N. Guzder, a shareholder in Treacher & Co., was fined Rs. 300 by the Chief Presidency Magistrate for defamations of the Directors of the Company.

A fire broke out at Tatta in Sind and resulted in the practical destruction of the historical and picturesque old town.

5th.—The Public Services Commission opened its session in Rangoon.

Programme of British Army Reliefs in India for 1913-14 published.

General Sir James Willcocks presented new colours to his old regiment of Leicesters at Bareilly.

Panjab Chamber of Commerce annual meeting at Delhi.

The sanction of the Secretary of State announced to the re-organization of the Provincial Service of the Survey of India.

The annual meeting of the Asiatic Society of Bengal.

6th.—Public meeting of the citizens of Aden when a movement was started to commemorate the visit of the King Emperor to the station in 1911.

9th.—H. E. the Governor of Bombay landed at Porbunder during his voyage from Karachi to Bombay and laid the foundation stone of the new cement factory to be started there by Tata, Sons & Co.

10th.—Bombay Municipality Justices Election.

11th.—Information was published showing that four lakhs of rupees worth of letters and parcels from the postal mail bag between Mokameh and Borabazar in Bengal.

13th.—The old students of St. Stephens College, Delhi, presented an address to Dr. Lefroy, Bishop of Lahore, congratulating him on his appointment to the Metropolitan See of India.

Important debate in the House of Commons on Indian Currency and Finance. The Premier announced that the Government would appoint a Royal Commission to consider these questions.

14th.—A remarkable article by His Highness the Aga Khan appeared in the *Times of India* appealing to Mahomedans to cease urging the Turks to continue the war with the Balkan States, and recommending India Moslems to send money for the relief of the distress caused by the war and to bend their energies to assisting the Turks with the assistance of Britain, to rehabilitate themselves in Asia Minor.

17th.—Imperial Legislative Council meeting at Delhi. The Select Committee's reports on the Registration Bill and the Administrator General's Bill and the Official Trustees Bill were presented. The Hon. Mr. Jinnah moved the Wakf Bill, to define the rights of Mahomedans to make settlements of property in favour of their families and descendants. It was referred to Select Committee.

The Burma Chief Court commenced the trial of the Directors of the Bank of Burma on charges of fraud.

The Public Services Commission meeting a second time in Calcutta to record evidence from Assam.

18th.—The Public Services Commission sat at Calcutta to hear the evidence of Assam witnesses.

Annual convocation of Bombay University. The Chancellor Lord Sydenham made an exhaustive farewell address.

Bombay Horse Show opened.

19th.—Educational Conference opened in Bombay under the auspices of the Teachers' Association. The Right Rev. Dr. Lefroy was consecrated as Bishop of Calcutta in Calcutta Cathedral.

21st.—Hindu University Deputation travelling through the country to collect funds for the University arrived in Bombay.

The Government of India issued an important resolution proclaiming their educational policy.

22nd.—The Public Services Commission opened its inquiry at Delhi.

Bombay races, Byeulla Club Day.

24th.—The application by Mr. Channing Arnaki, who was sentenced for libel in a case arising out of alleged immoral practices in Rangoon for permission to appeal to the Privy Council was heard by Lord Haldane, Robertson Shaw and Moulton and special leave to appeal was granted.

25th.—Imperial Legislative Council. The Hon. Mr. Gokhale moved a resolution in favour of compulsory and free education which was negatived by 37 to 19 after discussion in which the recent Government Resolution on education was reviewed. The Extradition Bill was passed. The Select Committee's report of the Official Trustees' Bill was presented and the Bill passed without discussion. The Bill to consolidate and amend the law relating to the office and duties of Administrator-General was considered in view of the Select Committee's report and passed. Sir Currimbhoy Ebrahim Baronetcy Bill was passed and the report of the Select Committee of the Wakf Bill was presented. The Council adjourned till March.

The *Times* severely criticised in a leading article the proceedings of the Public Services Commission representing that, unless the Commission's methods were drastically altered, they might cause serious increase in racial bitterness.

The peace of the North-East Frontier having been again disturbed, a large military force of military police was despatched to the turbulent villages. The disaffected area lies about 20 miles from Tamilu, the farthest military police post.

*Gazette of India* extraordinary issued containing the text of the Criminal Conspiracy Bill about to be introduced in the Imperial Legislative Council.

The marriage took place in Baroda of Kumar Sri Jaysingh Rao Gackwar.

26th.—The movement set on foot in Bombay to raise a memorial to Lord Sydenham was announced.

The Bombay Chamber of Commerce Annual Meeting.

28th.—The Central Dispensary of King George V. Anti-Tuberculosis League opened in Bombay by H. E. the Governor.

29th.—The Public Services Commission opened its Bombay Session.

## MARCH.

1st.—Imperial Legislative Council meeting at Delhi. Sir Guy Fleetwood Wilson presented the Annual Budget Statement which showed a surplus of 7½ millions sterling.

Trial concluded at Allahabad High Court of Lieut. Clark, I.S.M.S., and Mrs. Fulham on a charge of murdering Mr. Fulham. Both were found guilty.

3rd.—H. E. the Viceroy presided at the opening of the Chiefs' Educational Conference at Delhi.

4th.—Imperial Legislative Council. The report of the Select Committee on the Indian Companies Bill was presented. The Hon. Sir Reginald Cradock introduced the Conspiracy Bill which was referred to a Select Committee. The White Phosphorus Bill as amended by the Select Committee was passed. The Wakf Bill was passed.

5th.—The distribution of prizes to the students of the Victoria Jubilee Technical Institute in Bombay gave His Excellency the Governor an opportunity of explaining at length the prospective development in technical education in the Presidency.

Annual meeting of the European Defence Association in Calcutta.

Details published of the formation of an Association in India in affiliation with the Royal Navy and Army Boxing Associations in England.

6th.—Lawn Tennis: Western India Championship Singles Final won by R. D. England, the runner up being Captain T. C. Lucas.

7th.—Imperial Legislative Council meeting. The Budget was discussed.

The Government of India announced their decision to adhere to the south of the present City of Delhi, for the location of their new capital.

M. Constant, Port and Director of Customs at Bushire, and his wife were driving home from a dinner at night. A Persian ran alongside the carriage and fired repeatedly at its occupants killing Madane Constant and seriously wounding M. Constant.

The congregationalist Dr. Horton, on being welcomed home at Hampstead from a prolonged missionary tour in India, made a speech in which he spoke of the patience, endurance, beneficence and wisdom of the British Administration in India and publicly recanted his former opinion that Englishmen treated Indians with hot disdain and that Civil

Servants and officers of the Indian Army were men seeking their own aims, position and pleasure.

9th.—Lawn Tennis Western India Championship Doubles Final won by Messrs. J. A. D. Nowrojee and Engineer, the runners up being Messrs R. D. England and E. Ferrers Nicholson.

Lieut. Clark and Mrs. Fulham formerly convicted at the Allahabad High Court of the murder of Mr. Fulham were further convicted of abetting the murder of Mrs. Clark by four Indians. Clark was sentenced to death, Mrs. Fulham being sentenced to penal servitude for life.

11th.—The death announced of Dr. T. H. Thomson, C.S.I., late of the I.C.S., formerly Foreign Secretary to the Government of India.

13th.—Bombay Legislative Council meeting in Bombay. Annual Budget was introduced. An Act to amend the Bombay Land Revenue Code (1879), The Khote Settlement Act (1880) and the Gujarat Talukdars' Act (1888) and to repeal the Bombay Land Records of Right Act (1903) was read a third time. The Bombay Port Trust Act as amended by the Select Committee was passed. The Bombay Court of Wards Act Amendment Bill was passed.

14th.—Despatch of the Government of India announcing to the Secretary of State the outrage against the Viceroy last December and Lord Crewe's reply.

15th.—The Public Services Commission commenced its sittings at Nagpur.

16th.—Bombay Legislative Council. The Bill to amend the Bombay Police Act (1890) and the Bombay City Police Act (1902) were passed into law. The Bill further to amend the Bombay Municipal Act with the object of increasing the municipal powers to check the mosquito nuisance, the control of traffic in the streets and to control fruits supply was introduced and after its reading referred to a Select Committee. The Bill to amend and consolidate the law relating to the Talukdars of Gujarat was the subject of a generally hostile debate.

17th.—Imperial Legislative Council. The Hon. Mr. G. M. Chitnavis moved a resolution recommending the desirability, in view of the loss of the opium revenue, of considering financial measures for strengthening the resources of the Government with special reference to the possibility of increasing the revenue under a system of preferential tariffs with the United Kingdom and the Colonies. An important general debate on Indian fiscal policy ensued.

and in the answer Sir Guy Fleetwood reviewed the whole question from the standpoint of the Government of India showing the many aspects of the case that require consideration. Rai Bahadur Sri Ram moved a five per cent additional duty on foreign sugar. The proposal was rejected by 44 votes to 10.

**Bombay Legislative Council Meeting.** The debate on the first reading of the Gujarat Talukdars' Bill was resumed. The Hon. Mr. R. P. Barrow vigorously defended the measure. The first reading was agreed to and the bill referred to the Select Committee. The Hon. Lieut.-Col. J. Jackson, I.M.S., moved a resolution inviting His Excellency the Governor-in-Council to appoint a Committee to hold an inquiry into the question of assisting prisoners on release from jail. The resolution was accepted by Government and adopted. Numerous members made appreciative speeches of Lord Sydenham's Governorship in view of His Excellency's impending retirement.

Public meeting of the citizens of Bombay convened by the Sheriff for the purpose of commemorating the services of Lord Sydenham as Governor was held in the Town Hall. A resolution was passed expressing appreciation of Lord Sydenham's services and deciding that the College of Commerce to be established in Bombay should be called after His Excellency, and that the subscriptions raised in pursuance of this resolution should be primarily applied to the building and equipment of that college. It was further decided to give a public farewell entertainment to His Excellency and Lady Sydenham.

**18th.—Imperial Legislative Council.** The Select Committee's report on the Indian Companies Bill was considered and the Bill passed. The Select Committee's report on the Conspiracy Bill was presented and discussed.

**19th.—Imperial Legislative Council.** The Conspiracy Bill was passed after further discussion without a division.

**20th.—Imperial Legislative Council.** The Budget for 1913-14 was presented in its final

form. The Hon. Sir Ebrahim Rahimtulla moved that the ports of Calcutta and Chittagong may be opened to the embarkation of pilgrims to Hedjaz. After some discussion the resolution was adopted recommending that the question of re-opening these ports be reconsidered.

**24th.—Imperial Legislative Council.** All the non-official members spoke in glowing terms of the services of Sir Guy Fleetwood Wilson who was about to retire from the Government of India.

**25th.—**Great excitement was caused in Bombay in consequence of coming transactions in fine and good Broach cotton culminating in the fixing of the rate for the March settlement by the Cotton Trades Association of the day. The result was a hard hit for the bear operators.

**26th.—**Annual meeting of the Bombay Diocesan Church Society in Bombay. An appeal was made for financial support.

The Officers and men of the R. I. M. in Bombay were paraded in order that Captain Lumsden, R. N., the Director might read the appreciative letter which Captain Scott wrote to the widow of Lieut. Bowers, R.I.M., towards the end of the Antarctic Polar expedition in which both were engaged. Captain Scott in his letter highly praises Lieut. Bowers' sterling qualities. It was announced that the officers and men of the R. I. M. were subscribing for the erection of a bronze memorial tablet to Lieut. Bowers in Bombay Cathedral.

**30th.—**Death announced of Sir Edward Baker, late Lieutenant-Governor of Bengal.

**31st.—**The foundation-stone of the memorial "Gateway" to be erected on the Apollo Bandar to commemorate the landing of Their Majesties the King Emperor and Queen Empress in December 1911 was laid by the Governor of Bombay.

The Public Services Commission met at Lucknow.

## APRIL.

**1st.—**Sir Narayan Chandavarkar, lately retired from the Bench of the Bombay High Court, proceeded to Indore to assume office as Diwan of that State.

**2nd.—**The Bombay Government issued a paper containing their views prepared for the Public Services Commission.

**4th.—**Lord Willingdon accompanied by Lady Willingdon arrived in Bombay to succeed Lord Sydenham as Governor.

**5th.—**Lord and Lady Sydenham sail from Bombay for England at the conclusion of Lord Sydenham's Governorship.

**8th.—**The Governor of Bengal unveiled Lord Curzon Memorial Statue in Calcutta.

**9th.—**Bombay Millowners' Association meeting.

**10th.—**The Public Services Commission at Lahore.

**11th.—**The memorial statue to Mr. Justice Ranade was unveiled by the Hon. Mr. Claude Hill on the Cooperage Maidan, Bombay.

**12th.—**The Lieutenant-Governor of the Punjab formally opened the Lower Bari Doab Canal.

**15th.—**Mr. Justice Bakewell delivered judgment in the suit brought by Mr. G. Narayan Iyer against Mrs. Annie Besant for the custody of his two sons who had been taken to Europe in connection with the Theosophical Society for their education, and one of whom Kriama-murti was said by the Society to possess special qualifications of sanctity. His Lordship held that the plaintiff had not established serious charges of immorality he had made against Mr. Leadbeater with the boys at the Society's Head-quarters at Adyar, also held that from the evidence he had given Leadbeater was certainly an immoral person and highly unfit to be in charge of the boys. The deed which the plaintiff had executed transferring the

guardianship of the boys did not disentitle him to claim them again and it was for the welfare of the boys that they should be under their father's protection. It was also necessary in their interests to declare them wards of the Court. His Lordship also directed Mrs. Besant to hand over the boys on or before the 10th May. The Plaintiff was ordered to pay the costs of the suit, because it had been unduly protracted by the investigation of the charges he had brought against Leadbeater and not substantiated.

19th.—Members of the Public Services Commission sailed from Bombay for England, on the conclusion of the first stage of their enquiries in India.

23rd.—The second and final detachment of the 39th Central India Horse, who had been

on duty at Shiraz, returned from Persia to Bombay.

24th.—Bombay Presidency Trades Association Annual Meeting, Mr. Duncan Fraser (Evans, Fraser & Co.) being unanimously elected Master for the ensuing year.

Sir Mortimer Durand's biography of Sir Alfred Lyall published by Blackwood.

30th.—Collision on the G. I. P. Railway between Bhusawal and Nagpur by which 30 third class Indian passengers were killed and 14 European passengers more or less severely injured.

The Under-Secretary for India announced in the House of Commons that the Government of India intended to have its own school of military aviation and an officer trained in the air battalion in England.

## MAY.

3rd.—A Bannu telegram announced that Major G. Chrystie, 25th Cavalry, had been killed while pursuing raiders on the frontier.

Steamer containing 44 pilgrims reported to have foundered near the Saugor Islands at the mouth of the Nughl.

4th.—Mrs. Jane, wife of Deputy Inspector General of the Madras Police, Central Range, was killed in the motor accident at Coopun.

5th.—B. I. S. N. Co's steamer Ziada, 2027 tons, grounded at Mergui.

6th.—The Board of Trustees of the Central Hindu College, at a meeting at Allahabad, recorded their unanimous opinion that the Management of the College should be handed over to the Hindu University Society as early as practicable, and Mrs. Annie Besant, who had recently been in conflict with her fellow-workers in connection with the College, was confirmed in the presidency of the trustees and the chairmanship of the managing committee of the college until the time of handing over.

7th.—The Government of Burma announced their decision accepting the finding of a special court of inquiry into the Aungmya disaster, in which over ninety lives were lost in the Attaran river on January 21. The special court found the foundering of the launch was due to the rush of passengers to the sides of the upper deck to see what had fallen over-board, but that this rush would not have caused the launch to capsize had there been no cargo on deck. The preparation of rules to prevent such an occurrence in future was ordered.

8th.—Particulars received of an attack by a Chinese survey party on a British patrol at Akhyaing Valley, on the Burmo-Chinese Frontier.

Following the example of the Madras and Southern Mahratha Railway employees, guards and brakemen of the South Indian Railway struck for increased pay and allowances.

The Madras Presidency Magistrate dismissed the case brought by Mrs. Besant and others against the *Antiseptic and Hindu* for defamation in connection with criticisms of Leadbeater.

Marriage at Rajkot, Kathiawar, of the daughter of the late Ranisbal Buldebbji of Dharam-pore with Kumar Shri Harishidhi, heir-apparent of the Kashmir-Jammu State.

10th.—The death occurred of the Raja of Bhaji, Simla Hill States, who was 60 years old and succeeded to the gadi in 1875.

An extraordinary case of self-mutilation under the influence of religious excitement was reported from Nimar district of the Central Provinces, an illiterate peasant named Taxman having chopped off his own hand.

The Mysore Government approved a scheme for the improvement of technical instruction in the State, and decided upon the organization of a Technical Institute in Mysore and the opening of mechanical, engineering and commerce schools at Bangalore.

An official announcement was issued by the Government of India extending to foreign press telegrams the arrangement for transmission at deferred rates for reduced fees already in force regarding private messages.

12th.—The Union House of Assembly at Cape Town passed the second reading of the Immigration Bill effecting the immigration of Indians into South Africa.

13th.—The preparation of a scheme for the establishment of a provincial university for Bihar and Orissa was announced.

15th.—The Government of Bombay announced the Secretary of State's sanction of the institution of a College of Commerce in Bombay with an English principal and two English professors, and two Indian lecturers, the college to be under Government control, associated with a Consultative Committee and to be affiliated to the University of Bombay, which had instituted a degree of Bachelor of Commerce in connection therewith.

Death in Bombay of the Rev. John Cameron, Senior Presidency Chaplain of the Church of Scotland.

18th.—Text published of a memorial to Government by numerous property owners in, and visitors to, Matheran, against the present method of developing that hill station.

17th.—Bomb explosion in Lawrence Gardens, Lahore, a chaprasi being severely injured. The man trod on the bomb which was probably placed in the road to injure people leaving the gymkhana, near By.

19th.—Captain A. J. V. Betts, I.M.S., Resident Surgeon, St. George's Hospital, Bombay, was severely stabbed by his Mahomedan butler.

Proposals were announced to form a Gymkhana Club in Delhi to take over the polo ground in the old Durbar area and conduct tennis, races and gymkhanas next cold weather, membership being open to Indians as well as Englishmen. Several Maharajahs contributed substantially to the foundation of the club and the Hon. Sir Harcourt Butler was elected first President.

21st.—The Bombay Government issued papers setting forth proposals for the introduction of compulsory return tickets for Mahomedan pilgrims making the journey to Jeddah, and for an agreement with Messrs. Turner Morrison & Co., as agents of the Bombay, Persia Steam Navigation Company, for the issue of tickets by their steamers on a monopoly basis at fixed rates. A letter from the Government of India was published with the papers, directing the Bombay authorities to consult Mahomedan opinion on the subject.

26th.—H. Sir Louis Dane handed over the Lieutenant-Governorship of the Punjab, on retirement, to the Hon. Mr. Michael O'Dwyer.

Severe sentences were passed by the Military authorities at Simla against various British officers of the 88th Carnatic Light Infantry, recently found guilty by a Court Martial sitting at Cannanore of fraudulent misappropriation of Government and Regimental money and submitting false accounts. Sentences were also passed in connection with the same affair upon a native officer and two native non-commissioned officers.

The Amalgamated Society of Railway Servants in India announced a strike on the Madras and Southern Maratha Railway.

27th.—Annual report of the Protector of pilgrims in Bombay showed that 15,464 pilgrims left Bombay for the Haj during the 1912 season, as against 22,856 in 1911, the decrease in the number of pilgrims being ascribed chiefly to the fact that 1911 was the Akbari Haj and that for some time a state of war between Italy and Turkey prevailed in the Red Sea.

29th.—The service of trains of the Madras and Southern Maratha Railway became seriously deranged by the strike. Another strike was begun by men in the B. B. & C. I. Railway work-shops in Bombay. The strike spread among various classes of railway servants up the line, and engine drivers and guards also came out in considerable numbers on the G. I. P. Railway.

## JUNE.

8th.—Heavy monsoon rain fell in Bombay, 4.95 inches being recorded in the Fort.

9th.—Their Excellencies the Viceroy and Lady Hardinge held in the evening, the first Drawing Room that has ever taken place in Simla.

11th.—The Director-General of Observatories, Dr. Gilbert Walker, issued his forecast of the monsoon. He stated that after considering the *pros* and *cons*, "the general impression left is that the unfavourable and the favourable factors cancel one another."

The marriage took place at Dhrangadhra of the sister of the Raja Saheb, the premier Jhala Rajput Chief of Kathiawar, with K. S. Mingsinghi, heir apparent of the Pratapgarhi gadi, a Sisodia Rajput.

Disastrous floods were caused by heavy rain at Palitana in Kathiawar, some 1,500 houses were swept away and over 250 people drowned. Heavy floods also appeared in other places in Kathiawar.

12th.—Mysore Economic Conference opened. Anxiety began to be felt regarding the fate of the steamer Gallia which left Bombay on the 5th for Bhavnagar and was seen anchored at sea on the 6th and not heard of or seen since. A Port Trust tug was sent out to make a search.

13th.—The Bombay Government announced their decision to introduce the Sloyd system of manual training in Training Colleges for men in the Province.

14th.—The Maharaja Kumar of Tikari gave a farewell dinner to Sir Guy Fleetwood Wilson in Simla.

Mr. Gandhi, interviewed at Durban, expressed dissatisfaction with the new South African Immigration Bill and foreshadowed a revival of "passive resistance."

The s. s. Gallia was towed safely to Jaffrabad.

15th.—The first number of the *Indian Churchman*, a monthly church newspaper, was published.

A strike broke out on the Burma Railways. The Government of India issued an important resolution defining their sanitation policy.

17th.—The Indian community in Simla headed by Rajah Sir Harman entertained Sir Guy Fleetwood Wilson at a farewell dinner and Sir Guy delivered an important speech.

The Poona Municipality presented a cordial address of welcome to Lord Willingdon, on His Excellency taking up his first residence at Ganeshkhind.

The Editor (C. H. Rogers) and printer (S.H. Moffat), of the *Railway Times* were fined for libel upon Col. Sergt.-Instr. Martin of the G. I. P. Volunteers in connection with the arrangement of a volunteer's funeral.

19th.—The *Times of India* announced the preparation of a scheme for building a Marine Drive from Chaupati to Marine Lines along the Kennedy Sea Face, Bombay.

Mr. Leatham, Assistant Collector of Poona, convicted four men and three women coolies of assaulting Pte. Dennis, Sherwood Foresters, and illegally confining him in the compound of the Towers of Silence, Poona. He inflicted sentences ranging from a month's rigorous



imprisonment to a fine of Rs. 5, and said it was necessary in order to maintain the prestige of the Government that a heavier punishment be inflicted when the victim is a British soldier and one whom the accused must have known to be such, than would be necessary if they had attacked a coolie like themselves.

20th.—The Government's festivities took place throughout India to celebrate His Excellency the Viceroy's birthday and rejoice in the preservation of Lord and Lady Hardinge's life in the bomb outrage in Delhi in December 1912. The suggestion of a Children's Day originated with Lady Hardinge, who devoted to the providing of a treat for hospital children the money sent from all parts of India, as contributions to a thanksoffering for Their Excellencies' escape at Delhi, and asked private citizens to enable other children to join the festivities. Birthday congratulations were sent to His Excellency from every part of India.

23rd.—An "air-blast" occurred in the Champion Reefs mine at Kolar and ten work-people were killed and six injured.

24th.—Questions were asked in the House of Commons criticising the orders of the Lieutenant-Governor of the United Provinces (Sir J. Hewett) in regard to the retrial and execution of two Oudh Zemindars in September 1912.

25th.—Sir Guy Fleetwood Wilson left Simla enroute to Bombay and England on relinquishing his post as Finance Member of the Government of India.

The Government issued new rules approved by them with the object of improving the positions, on retirement of railway employes

in India, in regard to the grant of gratuities on retirement and the improvement of the provident fund.

26th.—Annual Darbar of the Sardars of the Deccan in Poona in honour of the birthday of His Majesty the King Emperor:

27th.—The Government of Bombay issued details of a new scheme for the conduct of St. George's Hospital, Bombay, the principal feature of it being the institution of a Nursing Home for wealthy people and the establishment of a European Advisory Committee in regard to the hospital at large.

Sir Guy Fleetwood Wilson was entertained at dinner by a number of leading citizens of Bombay on the eve of his departure for England, and made an interesting farewell speech.

The Bombay Government announced the appointment of a Special Committee of Mahomedans under the chairmanship of the Director of Public Instruction to consider and report what special measures should be taken for the promotion of primary, secondary and collegiate education of Mahomedan girls in the Presidency.

28th.—A terrible accident occurred on the East Indian Railway at Salpo, where an engine and nine carriages full of passengers were precipitated through the broken span of a bridge, which had been washed away by floods into the river beneath. It is estimated that 200 or more perished.

30th.—Lord Willingdon received an address of Welcome from the Poona Municipality on taking up his residence in the station.

## JULY.

2nd.—The retirement, on grounds of ill-health, was announced of Sir Thomas Raleigh, from membership of the Council of India.

3rd.—The Government of India and the India Office simultaneously issued all the reports of the town-planning experts consulted in reference to the lay-out of the new Delhi.

4th.—The trial began at Poona of 57 people who were stated to belong to a remarkable gang of professional thieves.

5th.—Special meeting of Calcutta University Senate to consider the Government of India's letter with regard to the employment as lecturers of persons recently taken a prominent part in politics.

8th.—Reports were received through Sindh of serious developments in the Oman Peninsula, owing to the rising of various tribal chiefs against the Sultan of Maskat.

9th.—The Managing Committee of the Bombay Presidency Permanent Famine Relief Fund published details of their scheme for the fund. Heavy floods occurred in Bombay Island as a result of exceptionally copious rain during the past two days. Five and a half inches fell in two hours during Tuesday night.

The Government of Bombay announced steps decided upon by them for the gradual spread of moral instruction in the schools of the Presidency.

Annual Northbrook Society Dinner in London. Interesting speeches were made by Lord Ampthill and Lord Sydenham.

10th.—Indian Trooping programme for the season 1913-14 published.

12th.—The Gazette of India contained details of a new scheme of scholarships for sending domiciled European and Eurasian girls abroad to complete their studies for joining the teaching and medical professions.

14th.—Remarkable case of sati at Jaraull, U. P. Five Brahmans were arrested in connection with it and sentenced to imprisonment. It appeared that they endeavoured to stop the sati but did not prevent it as they were frightened by the widow's threats to curse them if they did.

16th.—The Bombay Port Trust issued an abstract of the trade of the port for the past year showing that the revenue receipts reached a record high figure, and that the reserve fund to meet impending requirements for large capital works in progress had been brought up to Rs. 90 lakhs.

17th.—The Bombay Municipal Commissioner laid before the Corporation details of an important road and development scheme for dealing with Worli and Mahim Districts.

18th.—The new Government of India 3½ per cent. loan of three crores was taken up at an average rate of 96-8-4, the whole of the loan going to Bengal.

21st.—The Hon. Sir Fazulbhoy Currimbhoy, in a letter to the *Times of India* propounded a scheme for an Indian Congress of Trade and Industry, to meet biennially or triennially.

22nd.—The Hon. Mr. Claude Hill met the Bombay Chamber of Commerce and explained an elaborate scheme for improving the organisation of St. George's Hospital, Bombay.

23rd.—Deputation of the International Cotton Federation to Lord Crewe in favour of the further assistance of cotton growing and improvement in India.

25th.—The Government of India issued revised rules for the supply of articles manufactured in India for the public service.

Death announced of General Sir Harry Prendergatt, V. C., "the conqueror of Burma."

26th.—The Government of Bengal issued a resolution detailing a plan for the reorganisa-

tion of the Calcutta Municipal Corporation on the lines of the Bombay Municipality.

28th.—The Bombay Legislative Council Meeting at Poona, H. E. the Governor, Lord Willingdon, presiding. Budget discussed.

29th.—Bombay Legislative Council resumed. Budget debate concluded; Bill to amend the Prince of Wales' Museum Act of 1909 passed through all stages; Bill to amend the City of Bombay Municipal Act (to give more power for dealing with mosquito-breeding places) passed into law; Gujarat Talukdars Bill postponed, owing to amendments proposed by Select Committee having to be submitted to the Government of India. Resolution adopted in favour of medical inspection of school children. Resolution inviting the Governor-in-Council to initiate a movement for giving aid to released prisoners adopted.

Death occurred of Sirdar Dastur Byramji Jamaspji, of Bombay, a retired officer of the British service, who rendered signal service in Berar, where he was stationed during the Indian Mutiny.

30th.—Deputation of Depressed Classes Mission to H. E. the Governor of Bombay at Poona urging the necessity to provide hostels in Bombay.

Cyclonic storm of great intensity swept over Berar.

## AUGUST.

1st.—Sir Bradford Leslie, in the journal of the Royal Society of Arts, discussed in detail the proposed town-planning scheme for new Delhi.

2nd.—The Hon. Mr. G. K. Gokhale delivered an inaugural lecture to the Indian Association in London, expressing fear of an increase of racial and colour prejudice.

3rd.—A serious riot arising from the demolition of the dahan of the Cawnpore Machhi bazaar mosque, in connection with a street improvement scheme, resulted in the magistrate's ordering the police to fire at the mob, whose religious fanaticism had been aroused by agitators, and 24 were killed and 45 injured. Numerous arrests were made.

5th.—The India Office published correspondence regarding the trial and execution of two zemindars of Sitapur for murder. Lord Crewe, discussing the action of the Lieutenant-Governor, Sir John Hewett, in withholding from the Government of India the accused's petitions for mercy, acknowledged that Sir John was acting according to rule and with a sole eye to the righteous discharge of his duty, but expressed the opinion that Sir John Hewett would better have thrown the onus upon the Government of India. Sir John Hewett in an explanatory statement asserted that he acted on an interpretation of the rules upon which the Government of India repeatedly insisted; Sir John took strong exception to the irregular behaviour of a number of members of Parliament in connection with the matter and to the unfair critical remarks made by the Under-Secretary of State without his being given an opportunity of stating his case.

7th.—The Moral and Material Progress report for the 10 years in India ending 1911-12 was issued.

The Indian budget was presented in the House of Commons and Mr. Montagu, Under-Secretary of State, made a noteworthy speech upon it, discussing broadly the leading Indian questions of the day.

Lord Crewe and Sir Edward Grey received a representative deputation from the opponents of the Indian opium traffic with China.

9th.—Death announced of Major-General Sir George Dartnell, who fought with distinguished gallantry in the Indian Mutiny and in several other campaigns.

A great storm broke out at Moulemein in Burma.

10th.—Reports from Calcutta of serious floods at Burdwan showed that 300 villages were overwhelmed, with enormous loss of human life and destruction of cattle and property. Reports from other parts of Bengal showed that storms and floods had happened in various parts of the province.

11th.—The death occurred of Sir Adumji Peerbhai, Kt., Bombay.

Details published of an Oman rebellion against the Sultan of Muskat.

12th.—The Government of India published full papers in connection with the Sitapur murder case.

Reports from Burao, in Somaliland, stated that a force under Commandant Corfield had been cut up by a large body of Dervishes while making a reconnaissance between Berbera

and Odwein and that the Commissioner in Somaliland, Mr. Archer, had withdrawn from Burao in good order. Commandant Corfield was killed at the outset of the fighting.

14th.—One hundred and twenty persons accused of rioting and causing grievous hurt to a public servant in the discharge of his duty at Cawnpore in connection with the Machhli bazaar mosque riot, were placed on trial before Mr. H. M. Smith, Special Magistrate, at Cawnpore.

It was announced that Dr. Rash Bihar Ghose, who recently gave ten lakhs for a University College of Science in Calcutta, intended to double the amount of his contribution.

16th.—Sir James Meston, Lieutenant-Governor of the Punjab, received a Mahomedan deputation regarding the Machhli bazaar affair. His Honour pointed out in reply to an address that the trouble arose not from Government's act, but from a travesty of those acts and motives made by agitators. He appealed to Moslems to place confidence in the Government's goodwill.

18th.—Death announced of Sir Edmund Fulton, I.C.S., K.C.I.E., who performed 38 years public service in India, and was judge of the Bombay High Court and Law Member of Council, Bombay.

20th.—James Collins, European telegraph maintenance inspector on the G. I. P. Railway,

was convicted by the District Magistrate of Akola of failing to carry out his working rules for the inspection of railway telegraph offices, the case having arisen out of the failure of the telegraph instruments at Katepurna railway station to act properly, thereby contributing to the railway collision at Boregaon in April. Collins was sentenced to three months' rigorous imprisonment.

21st.—Sadashiv Manohar Joshi, Assistant Station Master, Boregaon, G. I. P. Railway, was convicted and sentenced to 18 months rigorous imprisonment for criminal negligence in the performance of his duties, leading to the Boregaon collision in April.

25th.—Punjab Sanitary Conference opened at Simla.

Marriage in London of Kumar Jitendra, heir to the Cooch Bihar gadi, and Kumar Indira, daughter of the Gackwar and Maharani of Baroda.

Southern India Planters' Conference opened at Bangalore.

28th.—The first number of volume 1 of the *Indian Journal of Medical Research*, being the official journal of the Indian Research Fund, was published.

29th.—A two days' cricket match between Englishmen of the Bombay Presidency and a Hindu eleven, at Poona, resulted in a Hindu win by 5 wickets.

## SEPTEMBER.

1st.—The Maharaja of Cooch Bihar died in London, his successor being his brother, Kumar Jitendra, who was married to the only daughter of the Gackwar of Baroda a few days previously.

2nd.—A cricket match between Bombay Presidency and a Parsi eleven, at Poona, resulted in the Parsi's winning by 29 runs.

One hundred and one prisoners charged in connection with the Machhli bazaar riot at Cawnpore were committed for trial at the Sessions.

5th.—The Victoria Jubilee Secretariat Institute in Bombay celebrated its Silver Jubilee.

Death announced of Major-General Sir John Ramsay, K.C.B., Royal Artillery, who figured prominently in Indian Frontier wars.

8th.—Poona I. C. S. week began.

Mahomedans met Parsis in the annual quadrangular cricket tournament in Bombay.

Indian Engineering Conference opened at Simla, continuing until the 13th instant.

H. E. the Viceroy's Legislative Council met in Simla. The Hon. Mr. Ali Imam introduced a Repealing and Amending Bill—a measure for removing from the Statute Book portions of law which have become obsolete—and also introduced a bill to Amend the Civil Procedure Code, 1908. The Hon. Sir Edward MacLagan introduced an Insects Pest Bill, an agricultural measure to prevent an importation of insects pests into India. The Hon. Sir Harcourt Butler introduced a Bill to modify the Copyright Act of 1911. The Council adjourned till the 17th instant.

Annual tournament week of the Royal Western India Golf Club opened at Nasik.

10th.—The Mahomedan-Parsi Quadrangular tournament cricket match in Bombay resulted in a Mahomedan win by 18 runs.

Delegates to the Third India Sanitary Conference to be held at Lucknow in 1914 announced.

11th.—English Presidency team met the Hindu eleven in the Quadrangular cricket tournament in Bombay.

Interim report of the Royal Commission to inquire into Indian Finance and Currency published in London. The report consisted chiefly of the evidence of London witnesses.

12th.—The Hindus won the cricket match against the English team in Bombay by 7 wickets.

13th.—Publication was given to a letter addressed by the Government of India to the Registrar of Calcutta University re-affirming the principle that persons taking a prominent part in politics should not be made lecturers of the University.

15th.—Three days' Conference on agriculture for the Bombay Presidency, excluding Sind, opened at Poona.

17th.—Imperial Legislative Council met at Simla. The Hon. Sir A. Cradock introduced a Bill to Amend the Indian Penal Code and Criminal Code, to provide further protection to minor girls. The Hon. Mr. H. Wheeler introduced the Motor Vehicles Bill. His Excellency the Viceroy concluded the session with

a noteworthy speech reviewing both home and foreign affairs, concerning India.

The match between Hindu and Mahomedan teams for the cricket championship in Bombay was drawn.

18th.—Meeting of Simla residents held to consider the position of Indians in Canada. Statements were made by Delegates from the Canadian Indians.

Captain Waterfield, at the United Service Institution, Simla, lectured on the explorations which he and the late Captain Pritchard recently carried out beyond the Burma Frontier.

10th.—His Excellency the Viceroy opened the Hardinge Hospital built on the initiative of the late Mr. Malabari, at Dharampore, in connection with the sanatorium for consumptives there.

Annual Bombay Provincial Co-operative Conference opened at Poona.

First Meeting of the Punjab Legislative Council under H. H. Sir M. O'Dwyer, the new Lieutenant-Governor, who made an interesting inaugural speech.

20th.—The Peoples' Bank of India with headquarters at Lahore, and branches, stopped payment.

21st.—A press note issued in Simla by the Countess of Dufferin's Fund Committee an-

nounced details of Her Excellency Lady Hardinge's scheme for the formation of a Women's Medical Service for India.

22nd.—The Annual Railway Conference assembled in Simla under the chairmanship of Mr. Muirhead, Agent of the South Indian Railway.

26th.—Correspondence published in which the Provincial Governments stated their views regarding the proposal to open other ports than Bombay and Karachi for Mahomedan pilgrim traffic, the opinion being universally expressed that no advantage would accrue from the opening of other ports.

27th.—The Amritsar Bank suspended payment.

28th.—Annual Meeting of the Bombay Indian Merchants' Chamber and Bureau.

29th.—Bankim Chandra Chaudari, Inspector of Police, formerly of Dacca, was murdered by bomb in his house at Mymensingh, Bengal.

Hari Padu Deb, Senior Head Constable of the Special Branch of the Calcutta C. I. D., was shot by some one in the crowd in College Square in Calcutta. Three shots were fired.

30th.—Their Excellencies the Governor of Bombay and Lady Willingdon, arrived in Simla on a visit to their Excellencies the Viceroy and Lady Hardinge.

## OCTOBER.

1st.—The Annual Report of the Royal Army Temperance Association for the year 1912-13 in India was published, and showed a steady and gratifying progress of work.

3rd.—Miss Murphy, an Englishwoman, was murdered for purposes of robbery while travelling in a train near Basti, in the United Provinces.

2nd.—Hindustan Bank, Multan, suspended payment.

3rd.—The Burma Chief Court accepted the arrangement proposed by the official liquidator regarding the sale of the British Burma Petroleum Company's shares in the Bank of Burma, in liquidation.

Credit Bank of India, Bombay, suspended payment, following on an unprecedented rush for withdrawals as a result of the failure of the Peoples' Bank of India.

A judgment of the Supreme Court at Pietermaritzburg was reported, in which the court held the marriage of an Indian emigrant to be polygamous because the man had married a woman under Mahomedan rites in a country permitting polygamous marriages.

5th.—The death occurred of the Sultan of Muscat, Prince Taimur, his eldest son, succeeding him.

6th.—All India Shiah Conference opened at Jaunpore.

7th.—The Bombay Port Trust issued their annual report, which showed that there was a record revenue during the year in spite of partial failure of the monsoon and that in every respect the year was from the standpoint of the Trust a favourable one.

8th.—The annual report of the Indian Telegraph Department (1912-13) was issued and stated that during the year the telegraph system was extended by the erection of 1,184 miles of line and 11,691 miles of wire and cable, and at the close of the year consisted of 78,862 miles of line and 311,034 miles of wire and cable. The number of signalling operations was 78,200,879 against 75,451,192 in the preceding year. There was a general increase of work, and the percentage of revenue earned on capital was shown to have been 2.08 per cent. per annum. The Director-General in his report contended that the return could not be regarded as satisfactory so long as it fell short of 3.5 per cent. per annum.

10th.—Bombay Banking Company suspended payment.

11th.—The Government of India issued a resolution appointing a committee to inquire afresh into the question of the feasibility of securing the use of universal weights and measures in India, the committee to tour India in order to obtain the opinions of the Chambers of Commerce and leading merchants and others.

13th.—Annual Sessions of the Mahomedan Educational Conference opened at Poona.

The Government of Bombay announced arrangements made for opening a College of Commerce in Bombay, stating that the Secretary of State had not found in England a suitable candidate for the post of principal wherefore the Government of Bombay appointed Mr. K. Subramani Aiyar, B.A., L.T., F.S.A.A. (London), to act as Honorary Principal, four Indian lecturers also being appointed.

14th.—His Excellency the Viceroy, accompanied by Lady Hardinge, started from Simla on a tour including Kapurthala, Bikaner, Daulatabad (for Ellora), Hyderabad, Secunderabad, Bijapur, Gairsooppa, Mysore, Bangalore, Kolar, Madras, Cuttack, Gya, Bankipur and Alwar.

His Excellency the Viceroy visited Cawnpore and announced there his decision to settle the Machhl Bazaar Mosque dispute by permitting the mosque authorities to rebuild the demolished dalan on an arcade, so that the dalan could be placed in the same relative position as before, but on a higher level, thereby allowing space for the pavement in connection with the road widening scheme to pass beneath it. His Excellency also announced his decision, with the full concurrence of the Lieutenant-Governor, Sir James Meston, and Acting Lieutenant-Governor, Mr. Baillie, to invite the local Government to take immediate steps for the cessation of proceedings against the 106 persons awaiting trial in connection with the mosque riot.

16th.—Mr. O. C. Lees, who has been engaged the several years in investigating a grand trunk canal project for connecting Calcutta with Eastern Bengal, published an exhaustive report and estimate in connection with the scheme. The total estimated cost of the project he placed at Rs. 21,01,500. The net financial calculations showed, he estimated, that in the 6th year after the completion of the project the net revenue would pay a return of 4.73 per cent.

The Government of Bombay notified the appointment of a committee consisting of the Hon'ble Mr. Claude Hill (Chairman), the Executive Engineer, Presidency, and a representative of each Bombay Municipal Corporation, Bombay City Improvement Trust and Bombay Port Trust, with the Consulting Architect to Government and the Special Officer, Saltette Building Sites, to report on the progress made with various schemes for the development of Bombay and to consider and report what measures should be taken for further systematic development.

20th.—Lord Crew, supported by members of the Council of India and some India Office officials, held a reception in his office of 75 officers newly appointed to Government service in India on the eve of their departure and delivered an interesting speech to them on the prospects of their work.

21st.—Serious developments were reported in the Bombay Share Bazaar as a result of recent bank failures and heavy speculations in certain mill shares. Simultaneously reports came of

a serious crisis and failures of piece-goods merchants in Karachi. Mr. Jehangir Byramji Dalal, a prominent share broker in Bombay, was adjudicated an insolvent. His operations in speculative mill shares were extensive and his liabilities consequently great. The share bazaar was thrown into panic and a financial crisis precipitated.

22nd.—Appointment of General Sir Beauchamp Duff, G. C. B., K. C. S. I., K. C. V. O., O. I. E., to be Commander-in-Chief in India in succession to General Sir O'Moore Creagh, retiring in March, 1914.

24th.—A meeting of Indians of all communities was held in the Bombay Town Hall, when the Hon. Mr. G. K. Gokhale delivered a stirring speech regarding the position of Indians in South Africa.

25th.—A strike of officers engaged in P. & O. steamers broke out in England and the sailing of one steamer was delayed. The officers demanded general improvement of their positions and prospects especially in regard to promotion and pay.

28th.—The Hon. Surgeon-General H. W. Stevenson, I. C. S., I. M. S., Surgeon-General with the Government of Bombay, was entertained by medical men of his own service and outside at a farewell gathering in Bombay on his retirement. Medical men of all communities enthusiastically co-operated in an unprecedented manner.

29th.—Sir Hugh Barnes resigned his membership of the Council of India.

Reports from South Africa, day by day showed rapid development of the Indian passive resistance movement to secure better treatment of Indians, while the Union authorities professed to adopt a policy of ignoring it.

31st.—Correspondence was published in London showing the development of a serious split in the All-India Moslem League. Mr. Ameer Ali and H. H. The Aga Khan both resigned their official positions in connection with the League, membership after an exchange of letters between Mr. Ameer Ali, of the London Committee of the League, and Mr. Wazir Hasan, Secretary of the League in India. The letters showed a substantial disagreement with regard to policy between the older members of the League and "Young Mahomdians".

The Council of All India Moslem League elected the Hon. Sir Ebrahim Rahimtulla, K. C. I. E., Bombay, President of the annual sessions of the League to be held at Agra on the 29th and 30th December.

## NOVEMBER.

1st.—The provisional liquidator appointed in connection with the Credit Bank of India, Ltd., filed an affidavit regarding his investigations into the Bank and applied for the examination before the Court of certain Directors of the Bank, the Manager and others. Orders were passed accordingly.

3rd.—The Royal Commission on the Public Services having arrived in India last mail commenced its sessions in Delhi. The Commission sat in two parts, first devoting themselves, one

to the Finance Department and the other to the Post and Telegraph Departments. The Commission continued for over a month in Delhi, dealing with all the main branches of Government service except the I. C. S.

4th.—Failure reported of the Kathiawar and Ahmedabad Banking Corporation, Ltd.; authorised capital Rs. 1,00,00,000, subscribed Rs. 21,64,500, capital called up Rs. 8,45,620.

5th.—Karachi Merchants Bank, Ltd., closed its doors.

Appeal by the People's Bank of India, Ltd., to the Punjab Chief Court against the orders of the District Court, Lahore, appointing a provisional liquidator, dismissed.

H. H. The Aga Khan wrote from Paris to the Hon'ble Mr. Amir Ali expressing profound regret at Mr. Ali's retirement from his official position in connection with the Indian Moslem League and giving reasons for his own irrevocable decision to retire from the Presidency of the League in India.

5th.—Their Excellencies the Viceroy and Lady Hardinge arrived in Mysore, on an official visit to H. H. The Maharajah.

6th.—The Government of India announced the placing of 3½ crores of rupees from their cash balances at the disposal of the Presidency banks for the benefit of trade.

6th.—An elaborate programme of celebrations of the centenary of the establishment of the American Marathi Mission in Western India was commenced in the Town-Hall, Bombay, Sir Henry Procter presiding.

The committee of Management of the Hindu University unanimously resolved in favour of the Central Hindu College at Benares being incorporated with the Hindu University Society subject to certain conditions.

Official announcement was made of the approval of Secretary of State of the recommendations to the Government of India for the constitutions of the Legislative Council for the Central Provinces. The Council will consist of not more than 24 members, excluding the Chief Commissioner, 7 members being elected by the Municipalities, District Boards and Landlords in the C. P., and 17 nominated by the Chief Commissioner, three of the latter being nominated from Bengal on the recommendations of electoral colleges consisting respectively of the Municipalities, District Boards and landholders.

7th.—Mr. Gandhi, while leading a large body of Natal Indians across the Transvaal frontier, in connection with the passive resistance movement, against the Government of the Union, was arrested at Volksrust and remanded till November 14, bail being allowed. The Hon'ble Mr. G. K. Gokhale issued from Delhi a fervent appeal for funds in connection with the South African struggle.

• The examination began before the Hon'ble Mr. Justice Davar, at Bombay High Court, on behalf of the Official Liquidator, of various persons called to give information regarding the affairs of the Credit Bank. Mr. Chunilal D. Saraya, Managing Director of the Indian Specie Bank, was in the witness box for some hours.

The Bombay Government announced the appointment of the following Committee to consider the question of the development of the town and Island of Bombay:—The Hon'ble Claude Hill (Chairman), the Hon'ble Sir P. M. Mehta, the Hon'ble Sir Ebrahim Rahimtulla, the Hon'ble E. L. Spott, Mr. G. Wittet and Mr. B. W. Kissan, the latter also to act as Secretary.

The Secretary of State, Lord Crewe, in an address before the Philosophical Association

of Edinburgh, entitled "Scotsmen in India" paid an enthusiastic tribute to the part played by Scotsmen in India.

9th.—A destructive fire destroyed the building occupied by Ewart Latham and Co. in Tamarind lane, Bombay. Three firemen were killed during the work of extinguishing the fire.

A mass meeting of Indians at Victoria, British Columbia, telegraphed to H. R. H. the Duke of Connaught and H. E. The Viceroy of India, seeking their influence to secure the repeal of the Immigration Law, which prevents Indians from entering Canada unless they have made a continuous voyage thereto, the continuous voyages being impossible because there is no direct shipping line between India and Canada.

10th.—The seventh annual report of the Tata Iron and Steel Company was published. It showed a profit of Rs. 8,58,583 during the past year, proposed no dividend for ordinary or deferred shares and stated that the quality of steel produced had improved and that several thousand tons of rails had been passed by the Government Inspector for the railways.

The Bakr-Id passed off without serious disturbances anywhere. The risk of trouble through Moslim cow killing at Ajodhia was averted by the District Magistrate prohibiting the taking of animals through Ajodhia to slaughter.

H. H. the Maharajah of Bikaner opened the newly constituted representative Assembly for his State, at Bikaner. The inauguration ceremony was the occasion of considerable pomp and was attended by the British Resident and other distinguished visitors.

12th.—The Right Rev. Bickersteth Durrant, D.D., was enthroned in Lahore cathedral as Bishop of Lahore.

New power house of the Nagpur Electric Light and Power Co., formally opened by the Chief Commissioner of the Central Provinces.

Last day of moorat settlement in the Bombay share market. The day passed more satisfactorily than was expected; 25 brokers could not meet their liabilities in full, about 5 of these being unable to pay anything.

Serious explosion of an explosive letter in the Howrah mail service office.

H. E. The Governor of Bombay arrived at Sholapur, accompanied by H. E. Lady Willingdon, for a short visit, at the commencement of an extended tour in the Southern Mahratta country.

13th.—The American Marathi Mission commenced centenary festivities lasting several days at Ahmednagar, the centre of their district work.

Mr. Jaffer Joosab, manager of the Credit Bank, appeared in the witness box for the commencement of his examination on behalf of the Official Receiver.

Mr. Gandhi was sentenced to 9 months' imprisonment at Dundee for his connection with the agitation in Natal. Mr. Polak and Mr. Killenbach were arrested and remanded without bail for refusing to give an undertaking not to take part in the passive resistance movement.

14th.—Mr. Nusserwanji Rustomji Mistri, Chartered Accountant, and auditor, with his partner, Mr. Rice, also a Parsi, of the Credit Bank, was examined in the High Court in the course of the liquidation proceedings.

H. E. The Governor of Bombay arrived in Bijapur.

News was published of a small Bhil rising in Native territory adjoining Panch Mahals district of the Bombay Presidency.

Mr. Gandhi was sentenced to 3 months' imprisonment, in addition to his sentence of 9 months. The Indians on the Natal sugar estates were stated to have struck work. A mass meeting was held at Mombasa to support the agitation of the Indians in South Africa. Meanwhile, news was received in India of nine compounds being used as gaols for strikers, with the mine officials as jailors. Various reports were received of brutal treatment of Indians in these circumstances. Public opinion in India became much inflamed.

Correspondence was published between the Secretary of State and Mr. Wazir Hasan and Mr. Mahomed Ali, in which the latter asked for an interview as spokesmen for the Moslem community in India, and Lord Crewe replied refusing to grant an interview, stating that the sentiments and aspirations of the Indian Mahomedans deserved to receive the fullest attention and sympathy of His Majesty's Government and that he spared no pains to inform himself in these matters through the many authoritative sources of information open to him. The Premier similarly declined to grant an interview.

16th.—Captain F. M. Bailey, R. E., and Captain Moreshhead, R.E., Indian Survey Department, returned from the Sanpo expedition, of which they were the leaders, and positively asserted that the course of the Sanpo is unbroken at any point within 150 miles of the place at which Kintup assigned the alleged falls.

17th.—The District Judge, Lahore, passed orders directing the compulsory winding up of the affairs of the People's Bank.

Their Excellencies The Governor of Bombay and Lady Willington arrived at Dharwar in the course of their tour.

Serious accounts of floods received from Southern India. It had rained incessantly for more than a week. In some parts of South Arcot a rainfall of 18 inches in 12 hours was received, while in certain villages the fall was stated to have been heavier.

The examination of Mr. Kazi Kabiruddin, chairman of the Credit Bank, was commenced in connection with the liquidation proceedings.

The appointment of the Hon'ble Mr. Fazulbhoj Chinoy to be the next Sheriff of Bombay was announced.

Lady Willington returned to Bombay from her tour with H. E. The Governor in the Southern Mahratta country.

18th.—The Lahore Bank, Ltd., whose godown was recently burnt down, stopped payment, going into voluntary liquidation.

19th.—Their Excellencies The Viceroy and Lady Hardinge arrived at Bangalore from Mysore.

The Governor of Bombay visited Hubli.

Grave reports came to hand from Natal of riotous outbreaks by strikers, after the arrest of Mr. Gandhi and other leaders.

23rd.—It was reported that in view of the reports appearing in Reuter's telegrams and elsewhere that Indians in South Africa were being cruelly treated and intimidated, that the mines were being converted into gaols, and strikers flogged and threatened with starvation, that two had been shot and wounded, and that one had actually been flogged to death, while a further telegram reported that these allegations were denied, the Government of India telegraphed on the 19th November to the Secretary of State for India strongly urging the necessity of a thorough and impartial inquiry being made immediately and in the case of the allegations proving true, emphatically protesting against the inhuman treatment of a loyal section of the subjects of the King and requesting the immediate intervention of His Majesty's Government to secure reparation and treatment of Indians in South Africa in accordance with the methods of civilised countries. On the same day the Viceroy telegraphed direct to the Governor-General of South Africa.

21st.—A small shareholder of the Indian Specie Bank presented a petition for the winding up of the Bank, making grave allegations as to the conduct of the business by the Managing Director, Mr. Chunilal D. Saraya, and alleging the dissipation of the Bank's capital in speculative operations. Mr. Justice Davar promised to pass orders next day.

The Governor of Bombay arrived at Belgaum.

The Calcutta police arrested various young Bengalis in connection with the alleged discovery of the bomb factory in Calcutta.

The Colonial Office published two long telegrams from Lord Gladstone, the Governor-General of South Africa, dated November 19th and November 20th, which dealt in great detail with the utilization of mine compounds in the Dundee district and one in the Newcastle district, as out-stations for the Dundee and Newcastle gaols, the number and length of sentences served and suspended, etc.

22nd.—Dr. Patel, Director, Credit Bank, was examined in the liquidation inquiry.

An official communique announced the reconstitution of the Advisory Committee for Indian students in England, the Committee to consist, in future, of the chairman and no more than 12 and not less than 8 members, of whom at least half shall always be Indian gentlemen resident in England.

H. E. The Viceroy visited Mandapam and inspected the roller bridge built to afford railway connection between the southernmost point of the Indian mainland and the island of Rameswaram, in connection with the Indo-Ceylon Railway project.

Sir Shapurji Broacha gave a dinner at the Hotel Cecil at which 50 guests were present to meet Mr. Lionel Abrahams, of the India Office, on the eve of his departure for tour in India.

24th.—Justice Davar allowed the petition against the Indian Specie Bank to be withdrawn, the parties having come to an arrangement with the petitioner.

H. E. The Viceroy arrived at Madras and in a remarkable speech in reply to addresses of the Mahajana Sabha and the Madras Provincial Conference Committee, associated himself wholeheartedly with the Indian demand for redress of grievances in South Africa.—General Botha, Premier of the Union Government in South Africa, in an interview, stated that his Government had nothing to conceal and courted inquiry.—The Hon'ble Mr. Gokhale having stated that the South Africa Union Government promised him to repeal the £3 tax on Indians in Natal, and General Smuts of the Union Ministry having denied the statement, Mr. Gokhale issued a communication reiterating the statement and producing circumstantial evidence in support of it.—General Botha, speaking at a Party Congress at Cape Town, declared that his Government had exercised the greatest moderation and generosity towards Indians in South Africa, who had virtually declared war against the law of the country, and stated that none of the charges of ill treatment could, when investigated, stand the test of examination. He further stated that the agitators would do incalculable harm unless they abandoned the course they were following and emphatically declared that law and order should be maintained. He stated that the Government's first duty was to South Africa, the people of which would never allow interference with the rights and principles laid down in the constitution.

25th.—The Governor of Bombay arrived at Kolhapur.

27th.—The Bombay Municipal Commissioner's annual budget was brought before the

Standing Committee of the Corporation and in the course of the discussion several members expressed themselves in favour of the substantial reduction in taxation owing to the large amount (Rs. 25 lakhs) of the cash balance. The budget was finally adopted.

An official statement showing the progress of the co-operative movement in India during 1912-13 was issued. The total number of societies rose during the year from 8,177 to 15,323.

28th.—Mr. Jaffer Joosab, Manager of the Credit Bank, was submitted to further examination in the liquidation proceedings.

The Lakhmidas Khimji cloth market, situated in Shaikh Memon Street, Bombay, was burnt down by fire, damage to an extent variously estimated at from 10 to 30 lakhs being done.

29th.—The Viceroy arrived at Cuttack.

A public meeting of the ladies of Bombay convened by Lady Allsiah was held in the Bombay Town Hall to express indignation at the treatment of Indians in South Africa.

St. Andrew's dinners in Bombay and Calcutta.

30th.—The Viceroy arrived at Bankipore.

Mr. Chunnilal D. Saraya, Managing Director of the Specie Bank of Bombay, died suddenly from heart failure. His assistant immediately communicated to Sir Vithaldas Thackersey that there had been serious losses through silver operations entered upon without the cognisance of the Directors, whereupon the Directors forthwith filed a fresh petition for the winding up of the Bank. Consternation was caused in the Bombay markets, where business was stagnant.

## DECEMBER.

1st.—The Government of the United Provinces in a letter addressed to the Government of India reported on the serious agricultural conditions of the United Provinces owing to failure of the monsoon. The area affected to such an extent as to deserve special attention was stated to include the whole of the Agra, Rohilkhand and Bundelkhand divisions, the whole of the Allahabad division (except the Allahabad district, in which only the portion south of the Jumna and Ganges is affected) and the Kheri, Sitapur and Haridoi districts in the Lucknow divisions. These districts include an area of nearly 40,000 square miles with a population of about 19½ millions. Throughout the whole of this area special measures were stated to be required, involving at least a suspension of revenue and an unusually large distribution of tagay.

Mr. Justice Davar, in the Bombay High Court, heard arguments by counsel as to who should have the carriage of the winding-up proceedings on regard to the Indian Specie Bank. The Official Liquidator appointed in regard to the Bombay Banking Company presented his report on the affairs of the Bank. Jaffer Joosab, Manager of the Credit Bank,

was submitted to further examination in the High Court.

H. E. the Viceroy laid the foundation stones of the new Legislative Council Chamber and new High Court at Bankipur, the capital of Bihar and Orissa.

Mr. Mancherjee Bhownagsee introduced a deputation of Indians to the Secretary of State for India to present the views of Indians resident in England regarding the crisis in South Africa. Lord Crewe in a sympathetic reply emphasised the need for an impartial inquiry into the recent disturbances. The Indian question in Canada was brought to an interesting development by the decision of the Chief Justice that Indians can only be excluded from Canada for idioecy, disease, crime or mendicancy, as is the case with other British subjects. Some days later, the Dominion authorities passed orders prohibiting the immigration of labours of any nationality into Western Canada.

2nd.—H. E. the Viceroy reached Alwar.

A Blue Book dealing with the Indian crisis in South Africa from July 3 to November 29 was issued by the India Office. The papers



included a large amount of official correspondence dealing with the recent disturbances.

4th.—Mr. Justice Davar gave judgment placing the carriage of the winding-up of the Indian Specie Bank in the hands of Matubhai Govanbhai Doctor and another, the first petitioners.—A small shareholder of the Indian Merchants' Bank presented a petition for the winding-up of the Bank and made various allegations as to the conduct of the Bank. Justice Davar declined to admit the petition and set down the matter for hearing on a later date, ordering that the Directors of the Bank should as a preliminary step be supplied with a copy of the petition. The preliminary inquiry into the affairs of the Credit Bank concluded with the examination of Rahim Joosub, one of the Directors of the Bank.

It was announced that negotiations had been completed for the acquisition by a powerful syndicate of the whole of the Specie Bank's large unrealised stock of silver in London.

5th.—Their Excellencies the Viceroy and Lady Hardinge and their staff arrived at Delhi, on the completion of their tour.

6th.—Details were published of recent disturbances caused by Bhils in Rewa Kantha Political Agency, from which it appeared that the trouble arose out of an injudicious temperance campaign in the native state of Sunth and that troops had to be summoned from British Cantonments to disperse a body of about 4,000 Bhils, who collected under the temperance preacher and adopted the defiant attitude.

6th.—The announcement was made that the Secretary of State had sanctioned the creation of an appointment of Political Secretary to the Government of India, the holder of which would deal with all questions concerning Native States. The Viceroy selected Mr. J. B. Wood, C.I.E., of the Political Department, as the first incumbent of the new appointment.

7th.—Mr. Justice Davar sat to consider the petition for the winding-up of the Merchants' Bank and the statement of the Directors in reference thereto. His Lordship dismissed the petition and declared himself satisfied that it was put forward for the purpose of threatening a going concern and that he hoped the Directors would take legal steps against the petitioner for his action in the matter.

The eighth meeting of the Indian Board of Agriculture opened at Coimbatore, Mr. James Mackenna, Agricultural Adviser of the Government of India, presiding.

The fourth annual Zoroastrian Conference was opened in Bombay, continuing through this and subsequent days.

9th.—H. E. Senhor Conceiro da Costa, Governor-General of Portuguese India, was entertained by the Portuguese colony in Bombay during a visit to this city on his way from Goa to Daman and Diu.

10th.—A public meeting was held in the Bombay Town Hall to join the protest being made throughout India against the treatment of

Indians in South Africa. H. H. The Aga Khan presided and among the other speakers were Sir P. M. Mehta, Sir Narayan Chandra-varkar and Sir Jamsetji Jeejeebhoy.

His Excellency the Governor of Bombay was installed as Right Worshipful Master of the Freemasons' Lodge "Imperial Brotherhood," Bombay.

11th.—A general meeting of the Shareholders and Depositors of the Indian Specie Bank, called by H. H. the Thakor Saheb of Morvi, appointed a special committee to watch their interests in the liquidation proceedings and passed a resolution to apply to the Court dealing with the petition for liquidation to postpone proceedings pending consideration of proposals for reconstruction.

12th.—The text was published of the new treaty between the Government of India and the Maharajah of Mysore. The treaty greatly increases the dignity of the State of Mysore in its relation to the Indian Government.

13th.—The Pathare Prabhu Social Samaj in Bombay celebrated its silver jubilee.

14th.—H. E. the Governor of Bombay held his first levee in Bombay, the hour being after dinner and the place Government House, Malabar Point.

16th.—A meeting of the Bombay Legislative Council was held in Bombay, H. E. the Governor presiding. The second reading of the Bill to consolidate and amend the law relating to the formal recognition of the appointment of administrators of property by the Courts in the Bombay Presidency was postponed. The Hon'ble Mr. Claude Hill moved the first reading of a Bill further to amend Karachi Port Trust Act of 1886, and the first reading was carried. The Hon'ble Sir Richard Lamb introduced a Bill further to amend the Bombay Irrigation Act, 1879. The Bill was read the first time and referred to Select Committee. The Hon'ble Mr. P. D. Pattani introduced a Bill further to amend the City of Bombay Improvement Act, for the purpose of strengthening the financial position of the Trust by a surtax on transfers of property. The first reading of the measure was postponed until the March session of the Council.

17th.—Bombay Legislative Council: The Hon'ble Mr. Claude Hill moved the first reading of a Bill to provide for the making and execution of Town Planning schemes. The first reading of the measure was postponed till the March meeting. Various resolutions were brought forward by non-official members and discussed.

Garden party at Government House, Bombay.

18th.—Bombay Legislative Council.—The Hon. Mr. Godbole moved a resolution to modify the rules governing the College of Engineering at Poona so as to confine admissions to qualified students from the Bombay Presidency and its Native States and to reserve the guaranteed appointments of Assistant Engineers and Overseers and scholarships, and prizes to the qualified candidates of the Bombay Presidency and its Native States. There was a long dis-

cussion and the proposal was eventually defeated, and an amendment carried recommending Government to consider the advisability of increasing the accommodation of the Col-Gege.—The Hon. Moulvi Rafiuddin Ahmed moved a recommendation that in future all elections for returning members to the District Municipalities should be conducted by ballot. Government accepted the resolution, which was agreed to.—The Hon. Mr. Upasani moved the recommendation that the instruction of the first three English standards be introduced into the Higher Vernacular School. After some discussion the proposition was withdrawn. This concluded the business on the agenda paper.

The Directors of the Bombay Merchants' Bank appeared before Mr. Justice Davar calling upon Sumanthrao Anantaroaj Wajkar, who recently petitioned for the winding-up of the Bank, to show cause why he should not be prosecuted for making false allegations in his petition. The petitioner filed a lengthy explanation and an apology, and as the Directors left the matter in the hands of the Court, the Judge, made no order on the summons, stating that he was satisfied that the petitioner was rushed into presenting the petition by false information supplied to him.—Jaffer Joosub, ex-Managing Director of the Credit Bank of India, was arrested on a charge of improperly dealing with the funds of the Bank, and was brought before the Chief Presidency Magistrate. It was explained that the charge involved a sum of about 80,000 or 90,000 rupees. The prisoner was remanded in custody until January 6th.

Bishop Cotton High School Jubilee celebrations at Nagpur.

19th.—The first State Ball that has been held at Government House, Bombay, for a generation took place, and induced a scene without parallel in modern social Bombay. The gentlemen present were in full dress, either in uniform or in knee breeches and silk stockings. The ball began with a set of State Lancers, and dancing continued up to the small hours.

The preliminary report of the accountants appointed to investigate the affairs in the Indian Specie Bank was presented to Mr. Justice Davar. The report detailed the chief heavy losses sustained by the bank and revealed a fraudulent system of manipulating the books by which extensive silver speculations by the bank were concealed. A preliminary application was made on behalf of a meeting of creditors and shareholders previously held, appealing to the Judge to postpone further proceedings until time had been given to consider the possibility of reconstructing the Bank. The Judge declined to accede to this request. The Advocate General applied for the usual winding-up order and for the appointment of an Official Liquidator. The Judge passed the order and appointed Mr. Sanders Slater Official Liquidator, intimating that parties interested might make an application at a later stage for the appointment of an Advisory Committee to assist the Official Liquidator.

A serious riot broke out in the M. & S. M. Railway Workshops, Perambore, consequent on the enforcement of new rules as regards the closing of the gates against unpunctual workmen. The Railway Volunteer Rifles were called out and opened fire on the crowd, two men being killed and several wounded. The Royal Dublin Fusiliers and Police were also called before the trouble was crushed.

20th.—H. E. The Viceroy received at Viceregal Lodge, Delhi, a memorial presented by a Sikh deputation on behalf of the Khalsa Dewan Society, Vancouver, British Columbia, appealing for assistance in securing amendment of the Canadian laws regulating immigration. His Excellency, in a sympathetic reply, said that representations had already been made to the Canadian Government, who had made certain concessions as to the admission of wives and minor children of Indians resident in Canada, but that as the Government of India were unable to regard the situation as satisfactory they were again in correspondence with the Secretary of State upon the subject.

21st.—The Government of India announced the appointment of Sir Benjamin Robertson, Chief Commissioner of Central Provinces, to proceed to Durban to appear as representative of the Indian Government before the Commission appointed by the Government of South Africa to inquire into the strike disturbances in Natal. (He sailed on January 1st.)

H. E. The Viceroy and party left Delhi for Calcutta for a Christmas visit to the capital of Bengal.

Messrs. Gandhi, Polak and Killenbach, leaders of the Natal Indians, having been released from prison on the representations of the Commission appointed to inquire into the recent disturbances, addressed a meeting of 5,000 Indians at Durban, when a resolution was passed against Indians giving evidence before the Commission, as it did not include a representative of the Indians and urging the Government to appoint a European member acceptable to the Indians, and threatening that if this demand were not granted, the passive resisters discharged from prison would renew the passive resistance struggle.

22nd.—H. E. The Governor of Bombay and Lady Willingdon and party left Bombay for a Christmas tour to Idar and Palanpur.

A gang of trans-border raiders attacked a railway train containing a number of British officers and British and Indian troops during the night at Jehangira-road station, near Rawalpindi, with the apparent object of robbing a safe containing the cash takings of the Nowshera-Dargal Railway. The money was, owing to an accident, not in the train. The raiders ransacked the brake van. They were then interrupted by a body of unarmed sowars travelling in the train, who, by the ingenuity of Corporal Friend, of the Sussex Regiment, and Conductor Byers, of the 16th Mule Cadre, and an Indian Officer, succeeded in driving them off. The engine driver, guard and fireman were fatally shot by the raiders and a chowkidar was also killed. The raiders sub-

sequently attacked the railway station of Khairabad, about some five miles from Jehangira, looted the premises, killed two men and kidnapped the station master. Troops and Police were turned out to endeavour to capture the raiders.

23rd.—H. E. The Viceroy received a magnificent reception in Calcutta and in a speech in reply to a Municipal address of welcome contradicted the rumours that had been prevalent to the effect that he intended early retirement from India.

25th.—The ninth session of the Indian Industrial Conference was held at Karachi, the Hon. Mr. Lalubai Samaldas, of Bombay, presiding.

26th.—The Indian National Congress met at Karachi, the Hon. Nawab Syed Mahomed, Sahib Bahadur, presiding. The twenty-seventh session of the All-India Mahomedan Educational Conference began at Agra, under the presidency of Mr. Justice Shah Din. Various other conferences of provincial or smaller dimensions were held in various parts of India.

H. E. The Viceroy received a number of deputations in Calcutta and made an important speech covering a variety of subjects and especially dealing with Government policy in regard to liquor traffic, the use of drugs and education.

26th.—The death occurred in Bombay at the age of 78 of Mr. Alfred Thomas Whittle, C.I.E., a pioneer of the modern cotton trade in western India.

The Theosophical Convention at Benares.

27th.—All India Temperance Conference at Karachi. Reddi Educational Social Conference at Dundar, Mysore. Bavasara Kshatriya Conference, Mysore.

H. E. The Viceroy, in a speech at a dinner at the Calcutta Club, declared that "the idea of resigning has never for one single instant entered my brain" and that the lucubrations on the subject which had appeared in English press were absurd.

28th.—Their Excellencies the Governor of Bombay and Lady Willingdon arrived at Palanpur on a state visit in the course of their tour.

29th.—The Indian National Social Conference met at Karachi under the Presidentship of Sir Narayan Chandavarkar, who, in his presidential address, emphasised the lessons to be derived by the cause of social reform from the recent Bank failures and the struggle in South Africa.

30th.—The All-India Moslem League met at Lahore under the Presidentship of the Hon. Sir Ebrahim Rahimutullah, who in his opening address, spoke especially of the great benefit of the British Raj to India and the need for Mahomedans and Hindus to work together in loyalty to British rule and in harmony among themselves, if they were to attain the condition of unity when only it would be possible to give them self-government.

## RACING IN INDIA.

## Calcutta.

- The King-Emperor's Cup. Distance—1 mile 5 furlongs, 58 yards—  
 Mr. R. Craig McKerrow's Little Slave (8 st. 1 lb. carried 8 st. 2 lbs.), Templeman .. .. 1  
 Mr. Kelso's Beckmesser (9 st. 3 lbs.), Evans .. .. 2  
 Mr. R. Craig McKerrow's Victo (9 st. 4 lbs.), Barrett .. .. 3
- The King-Emperor's Cup. Distance 1 mile.—  
 Mr. R. R. S's Kempton (9 st. 3 lbs.), P. Brown .. .. 1  
 Mr. Garda's Lumination (9 st. 3 lbs.), Smyth 2  
 Mr. Heather's Blackbuck (9 st. 3 lbs.), Hardy .. .. 3
- The Viceroy's Cup. Distance 1½ miles.—  
 Mr. R. R. S's Mayfowl (9 st. 3 lbs.), Brown 1  
 Mr. Roy Chowdhry's Jemima (9 st. 3 lbs.), Amce .. .. 2  
 H. H. the Kour Sahib of Patiala's Saxonite (9 st. 3 lbs.), Pratt .. .. } Dead heat 3  
 Mr. Dessoysa's Metamac (9 st.), J. Tronoweth. }
- Also Run.—Hilarity (9 st. 3 lbs.), Valerius (9 st. 3 lbs.), and Jacamar (8 st. 10 lbs.)
- The Trials (1912). Distance—1 mile.—  
 Messrs. Heather and Jones' Black Buck (9 st. 3 lbs.) Fitch .. .. 1  
 Sir A. Apcar's Mayfowl (9 st. 3 lbs.), P. Kuhn .. .. 2  
 Sir A. Apcar's Vavasor (9 st. 3 lbs.), C. Hoyt .. .. 3
- The Metropolitan. Distance—6 furlongs—  
 Mr. R. Craig McKerrow's Ute (8 st. 6 lbs.), Templeman .. .. 1  
 Messrs. Dass and Paris' Nuncio (6 st. 13 lbs. carried 7 st. 3 lbs.), Duller .. .. 2  
 Mr. R.R.S's. Criton (9 st. 6 lbs.), Brown .. 3
- The Cooch Behar Cup. Distance—1¼ miles.—  
 Mr. R. R. S's Mayfowl (9 st. 31 lbs.), P. Brown .. .. 1  
 Mr. Thadden's Wayward and Wild (7 st. 3 lbs. carried 7 st. 3 lbs.), Crowden .. 3  
 Mr. Goculdass' Matchlock (8 st.), A. Hoyt .. 3
- The Merchants' Plate. Distance—1½ miles.—  
 Mr. T. M. Thadden's Wayward and Wild (carried 7 st. 2 lbs.), Thoburn .. .. 1  
 Mr. D. McCalmont's Dita Loun (7 st. 13 lbs.), A. Kuhn .. .. 2  
 Mr. Gussy's Valerius (carried 7 st. 5 lbs.), P. Kuhn .. .. 3
- The Macpherson Cup. (1912). Distance—1 mile, 6 furlongs and 132 yards—  
 H. H. the Kour Sahib of Patiala's Gunboat (9 st. 5 lbs.), W. Southall .. 1

- Mr. M. Goculdass' Master Delaval (7 st. 5 lbs.), A. Hoyt .. .. 2  
 Mr. Kelson's Hilarity (9 st. 5 lbs.) Evans .. 3
- The Grand Annual. Distance 2 miles, over eight flights of hurdles.—  
 Mr. Goculdass' Picnic (12 st. 7 lbs.), A. Hoyt .. .. 1  
 Colonel J. Desaraj Urs' Five Crown (11 st.) McNeillage .. .. 2  
 Mr. Thadden's Wayward and Wild (11 st. 4 lbs.), Northmore .. .. 3

## Calcutta Plate. Distance—6 furlongs.—

- Mr. R. R. S's Kempton (9 st. 10 lbs.), P. Brown .. .. 1  
 Mr. Goculdass' Polish (9 st. 3 lbs.), Ruiz .. 2  
 Mr. Garda's Lumination (9 st. 3 lbs.), Smyth .. .. 3

## Tollyunge Steeplechases.

- The Indian Grand National.—  
 Mr. Burjorjee's Herald (10 st. 9 lbs.), McNeillage .. .. 1  
 Mr. J. D. Scott's Proprietor (12 st. 7 lbs.), Northmore .. .. 2  
 Mr. E. J. Marshall's Kipling (9 st. 9 lbs.), Quinn .. .. 3
- The Tollyunge Plate.—  
 Mr. Cowper's Maisonette (9 st.), L. C. Hoyt .. .. 1  
 Capt. Miles' Idle (9 st.), Northmore .. 2  
 Capt. Kenworthy's Sholto (10 st. 3 lbs. carried 10 st. 6 lbs.) Owner .. .. 3

## Bombay.

- The Byculla Club Cup. Distance—1 mile 5 furlongs.—  
 Mr. Kelso's Beckmesser (9 st. 12 lbs.), Brown .. .. 1  
 Mr. Kelso's Hilarity (9 st. 5 lbs.), Evans 2  
 Mr. J. Crawford's Monsoon (6 st.) Purtoosingh .. .. 3
- Won by a neck. Time 2 minutes, 52 seconds. Thirteen ran.
- The Turf Club Cup (Arabs). Distance—1 mile 5 furlongs.—  
 Mr. Lion's Thank You (8 st. 3 lbs), Brown... 1  
 Mr. Ali Bin Talib's Nakib (8 st. 5 lbs.) Robinson .. .. 2  
 Nawab Najaf Ali Khan's Sir Knight (8 st. 13 lbs.), Evans .. .. 3
- The Grand Western Handicap. Distance about 1 mile.—  
 Mr. Alp's The Cellarer (6 st. 10 lbs.), Purtoosingh .. .. 1  
 Mr. R. Goculdass' Refresher (7 st. 10 lbs.), A. Hoyt .. .. 2  
 Mr. R. Goculdass' Soultline (8 st. 6 lbs.), Robinson .. .. 3
- Won by a neck. Time 1 minute, 56 4/5 seconds. Fifteen ran.

The Bombay Derby. (For Arabs). Distance—1 mile, 5 furlongs.—

Mr. Ali Bin Talib's Nakib (6st. 13 lbs.), Duller .. .. . 1

Mr. Ali Bin Talib's Gowahajmer (7 st. 2 lbs.), A Ferguson .. .. . 2

Nawab Najaf Ali Khan's Sir Knight (8 st. 3 lbs.), A Kuhn .. .. . 3

The Bombay City Plate. Distance—about 1½ miles.—

Mr. Kelso's Beckmesser (8 st. 1 lb.), Brown .. .. . 1

Mr. J. Crawford's Bachelor's Knot (7 st. 10 lbs.), Duller .. .. . 2

Mr. Garda's Bombastic (7 st. 13 lbs.), Pratt .. .. . 3

The Malabar Hill Plate. Distance—6 furlongs—

Mr. Kelso's Paul Pry (8 st. 5 lbs.), Evans. 1

Mr. Garda's Lumination (8 st. 5 lbs.), Pratt 2

Mr. Homi Billimoria's Hoppner (8 st. 5 lbs.) Mc Glone .. .. . 3

### Poona.

The Governor's Cup. Distance—R. C. & Distance.—

Mr. R. R. S's. Dhaman (8 st. 11 lbs.), Brown .. .. . 1

Mr. Zaid bin Mahomed's Harry Johnson (6 st. 13 lbs.), Kaikoshru .. .. . 2

Messrs. Goculdass & Nanji's Hadee (7 st. 9 lbs.), Purtoosingh .. .. . 3

Twenty-three ran. Won by 2 lengths, head between second and third.

Western India Stakes. Distance—1½ miles.—

H. H. the Jam Saheb's Punt (8 st. 8 lbs.), Hill .. .. . 1

Mr. A. S. Oomer's Dalmatia (7st.), Digby .. 2

Mr. M. Goculdass' Refresher (7 st. 2 lbs.), Hoyt .. .. . 3

The Aga Khan's Cup.—

Mr. Kelso's Hilarity (9 st. 3 lbs.), Ruiz .. 1

Mr. Gussy's Valerius (7 st. 10 lbs.), A. Ferguson .. .. . 2

H. H. the Kour Sahib of Patiala's Gunboat (9 st. 3 lbs.), Southall .. .. . 3

### Lucknow.

The Civil Service Cup. Distance—6 furlongs—

Hon. P. Thellussen's Devon (8 st. 4 lbs.), Quinn .. .. . 1

Messrs. Valentine and Vernon's Circus Girl (8 st.), Davis .. .. . 2

Mr. Newman's Hilda II (6 st. 5 lbs. carried 7 st. 7 lbs.), Butters .. .. . 3

Won by a short head. Thirteen ran.

The Army Cup. Distance 7 furlongs.—

Capt. Ridgeway's Raja Bahadur (10st. 1lb.) Capt. Furnell .. .. . 1

Maj. Holden's Dhol Sultan (11st. 3 lbs.) Owner .. .. . 2

Maj. Barnard's Monty (10st. 10 lbs. Capt.) Meyull .. .. . 3

Won by 1½ lengths.

The Lucknow Military Handicap Chase, Distance about 2 and a half miles—

Captain Kenworthy's Sholto (10 st. 5 lbs.), Owner .. .. . 1

Captain W. G. Miles' Idle (11 st. 5 lbs.), Pratt .. .. . 2

Mr. Thomas's Councillor (10 st. 8 lbs.), Mr. Thursby .. .. . 3

### Gwalior.

The Scindia Cup. Distance 1½ miles.—

Thakur Sripal Singh's Mayfly IV (8 st. 3 lbs.), Ruiz .. .. . 1

Mr. Lion's Atropine (7 st. 5 lbs.), Crowden... 2

Mr. Garda's Silver Memory (6 st. 10 lbs.), Purtoosingh .. .. . 3

The Western India Plate. Distance 1½ miles—

Mr. T. Harrison's Vancouver, (7st. 8lbs.) Harrison .. .. . 1

H. H. Kour Sahib of Patiala's Hamara (8st. 7 lbs.) Ames .. .. . 2

Mr. R. R. S's Coat of Arms (10st. 10lbs.) Brown .. .. . 3

### Meerut.

Meerut Gold Cup.—

Messrs. Valentine and Vernon's Maud (10st. 10lbs.), Northmore .. .. . 1

Messrs. Valentine and Vernon's Circus Girl (8st. 7lbs.), Bloss .. .. . 2

Mr. Fitch's Son-of-a-Gun (7st. 6lbs. carried 7st. 13lbs.), Barker .. .. . 3

The R. C. T. C. Steeplechase. Distance (2½ miles).—

Mr. Thomas' Walter (carried 9st. 7lbs.) Mr. Doyle .. .. . 1

Col. James & Capt. Durham's Metal Girl, (11st. 13lbs.) Capt. Durham .. .. . 2

Mr. Fagan's Terra Firma (carried 10st. 10lbs.) .. .. . 3

### Madras.

The Governor's Cup. (1912) Distance 1½ Miles.—

Mr. Dada's Vituloo Malsom .. .. . 1

Mr. A. Sattir's Wavehill, F. Bland .. .. . 2

Mr. Hajee Hashim's Pelargonium II. Laudowne .. .. . 3

### Bangalore.

Maharajah of Mysore's Cup. Distance 1 Mile 640 Yards.—

Mr. R. R. S's Coat-of-Arms (10st. 4lbs.), Brown .. .. . 1

H. H. Kour Sahib of Patiala's Mill (6st. 5lbs.), Southall .. .. . 2

Colonel Desraj Urs' Metal Maid (8st. 1lb.), McGlone .. .. . 3

**Mysore.**

The Maharajah's Cup. Distance 1½ Miles.—

Mr. R. R. S's Coat-of-Arms (9st. 7 lbs.),	
Brown .. .. .	1
H. H. Kour Sahib of Patiala's Hamara	
(10st. 4lbs.), Southall .. .. .	2
Mr. "A. N. Dass' The Witch (8st. 9lbs.),	
Butters .. .. .	3

**Amballa.**

Calcutta Turf Club Handicap. Distance 7 Furlongs.—

Mr. Roscoe's Record (9st. 13lbs.), Ruiz	1
Thakur Stripal Singh's Mayfly IV (8st. 13lbs.), Fifth .. .. .	2
Major Mussenden's Pyer's Mostyn (10st. 10lbs.), Northmore .. .. .	3

**Rangoon.**

The Rangoon Derby.—

Mr. Burjorjee's Hygela (9 st. 2 lbs) O'Neil	1
The Rangoon St. Leger.—	
Mr. B. N Burjorjee's Outlaw (7st. 13 lbs.)	
O'Reilly .. .. .	1

The Gujarat Cup.—

Raja of Baria.

The Salmon Cup.—

Colonel J. S. Forbes.

**Rawalpindi.**

Punjab Army Cup, Distance about 2 Miles.—

Major Harman's Sir Rupert (10st.), Mr.	
Doyle .. .. .	1
Mr. Freer's Tam (11st. 2 lbs.), Mr. Hig-	
gins .. .. .	2
Mr. Hornsby's Highborn (9st. 12lbs.), Capt.	
Wood .. .. .	3

Calcutta Turf Club Closed Steeplechase. Distance about 3 Miles.—

Captain Furnell's Bright Metal (12st. 7 lb.),	
Mr. Doyle .. .. .	1
Mr. G. Thomas' Councillor (10st. 13lbs.),	
Mr. McCatney .. .. .	2
Captain Pott's Bury Black (11st. 11lb,	
carried 11st. 5 lbs.), Owner .. .. .	3

**Lahore.**

Lieut.-Governor's Cup (1912).—

Capt. Pilcher's Ali Daba (10st. 2lbs.), Mr.	
Thursby .. .. .	1
Sirdar Jewan Singh's Padshah (10st. 8 lbs.),	
Captain Furnell .. .. .	2
Capt. Lee's Veto (8st. 6lbs. carried	
8st. 7lbs.), Captain Collett .. .. .	3

**Delhi.**

Indian Cavalry Grand Annual Chase. Distance 2 Miles over 8 fences.

Captain Keighley's Punch (11st, 7lbs), Capt.	
Bromilow .. .. .	1

**PIGSTICKING.**

The Kadir Cup.—

Final Heat.—Mr. Sherston (11th Lancers.  
Spear. Capt. Bromilow (14th Lancers), Mr  
Gray (3rd Horse).

**FOOTBALL.**

(Association.)

The Durand Tournament (Simla).—

Lancashire Fusiliers .. .. .	1 goal
3rd King's Royal Rifles .. .. .	Nil.

The Rover's Tournament (Bombay).—

The Royal Scots .. .. .	1 goal
Durham Light Infantry .. .. .	Nil.

Indian Football Association Shield (Calcutta).—

Royal Irish Rifles .. .. .	2 goals
Argyll & Sutherland Highlanders .. .. .	1 goal

Madras Gymkhana Tournament.—

Dublin Fusiliers .. .. .	3 goals
Cameron Highlanders .. .. .	1 goal

Rangoon Tournament.—

Munster Fusiliers .. .. .	2 goals
Rangoon Gymkhana .. .. .	1 goal

Eduljee Dinshaw Tournament (Karachi).—

' 93rd Battery, R.F.A. ... .. .	2 goals
59th Battery, R.F.A. ... .. .	1 goal

Murray Cup (Lucknow).—

The Royal Scots .. .. .	1 goal
King's Own Scottish Borderers .. .. .	Nil.

Lahore Trades' Tournament.—

The Royal Scots .. .. .	3 goals
The King's Regiment .. .. .	Nil.

Rugby.

Bombay Tournament.—

West Ridings .. .. .	21 points
Poona .. .. .	Nil.

All-India Tournament, Lucknow.—

Leicester Regiment .. .. .	8 points.
West Ridings .. .. .	3 points.

Madras Tournament.—

United Services .. .. .	5 points.
Madras Gymkhana .. .. .	3 points.

Calcutta Tournament.—

West Ridings .. .. .	5 points.
Madras .. .. .	3 points.

**HOCKEY.****The Aga Khan Tournament (Bombay).—**

After a draw—1 goal each.

Lusitanians beat XIVth Hussars by 3 goals to 1. (The Hussars retired six minutes before full time.)

**The Aga Khan Tournament. (Poona).—**

Cheshire Regiment .. .. 5 goals

Dorset Regiment .. .. 1 goal.

**The Aga Khan Tournament (Poona).—**

Dorsetshire Regiment .. .. 1 goal

Loyal North Lanes. Regiment .. Nil.

**Beighton Tournament (Calcutta).—**

Rangers beat Calcutta .. 2 goals to 1

**Bengal Gymkhana Cup.—**

St. Joseph's College .. .. 4 goals

Allahabad Students .. .. 3 goals

**Southern Army Tournament (Bangalore).—**

1st Brahmans .. .. 4 goals

61st Pioneers .. .. 3 goals

**Rajputana Tournament (Ajmer).—**

Locomotive Workshops .. .. 5 goals

Bandikui Club .. .. 2 goals

**Bangalore Gymkhana Tournament.—**

Oxford Regiment .. .. 3 goals

6th Jats and 61st Pioneers. (British Officers) .. .. 2 goals

**All-India Tournament (Allahabad).—**

North-Western Railway Volunteers .. 7 goals

Worcester Regiment .. .. 4 goals

**Eastern Command Native Army Tournament (Allahabad).—**

33rd Punjabis .. .. 7 goals

16th Rajputs .. .. Nil.

**TENNIS.****Bombay.****Western India Championship (Doubles).—**

Naoroji and Engineer beat England and E. Nicholson 6-4, 7-5.

**(Singles) England beat Lucas.—**

2 sets to Love. 7-5, 6-4.

**Marryat Cup.—**

Kidd beat Milne 4-6, 6-3, 6-1.

**Calcutta.****Bengal Tennis Championships (Singles).—**

Z. Shimizu (Japanese) beat C. Carroll.

**Championships Doubles.—**

D. S. and A. W. Shallow Runners-up.—

W. Irwin and A. H. Glendinning.

**Allahabad.****Men's Open Doubles.—**

Atkinson and Deane beat Rendell and Crawford, three sets to two.

**Men's Open Singles—**

Atkinson beat Davies 4-6, 6-2, 2-6, 6-4, 6-4.

**Simla.****Men's Singles. (Championships.)**

G. M. Coates (winner) and Maharaj Singh (runner-up).

**Men's Doubles.—**

Coates and Dr. Gray (winners) and Green and Vanderspar (runners-up).

**Ladies' Singles.—**

Mrs. Gracey (winner) and Mrs. Muspratt Williams (runner-up).

**Mixed Doubles.—**

Maharaj Singh and Bibi Amrit Kaur (winners) and Captain and Mrs. Turner (runners-up).

**Simla Open Handicap Tournament.—**

Men's Singles.—Mr. Vickery 1; Mr. G. M. Coates 2.

Men's Doubles.—Messrs. Marsden and A. Mathews 1; Messrs. Glancy and Vickery 2.

Mixed Doubles.—Capt. Macmullen and Miss Stoney 1; Mr. Vickery and Lady Cleveland 2.

**Madras.****South Indian Tournament.—****Championship Singles.—**

A. W. Molony beat T. C. Manders, 0-6 7-5, 6-3, 6-2.

**Championship Doubles.—**

T. C. Maunders and E. T. Mullings beat H. Noel Davies and Lieut. Colonel E. Hasell Wright. 5-7, 3-6, 10-8, 6-1, 6-2.

**Lakore.****Punjab Tournament.—****Men's Singles.—**

Major Davies beat Rendall 6-4, 6-4, 6-4.

**Ladies' Singles.—**

Miss Warburton beat Mrs. Adams, 7-5, 4-6, 6-4.

**Men's Doubles.—**

Crawford and Rendall beat Mant and French 7-5, 6-3, 8-6.

**Mixed Doubles.—Final.—**

Mrs. Leslie Jones and Atkinson beat Mrs. Adams and Major Davies, 3-6, 6-3, 6-3.

**Ladies' Doubles.—**

Miss Davidson and Mrs. Leslie Jones beat Mrs. MacIntyre and Mrs. Selwyn, 6-3, 3-6, 6-2.

**Karachi.**

Sind Championships, Open to all Clubs in India.—  
Men's Singles.—  
Mr. Crawford.  
Men's Doubles.—  
Messrs. Travers and Hawkes.

**Mixed Doubles.—**

Mrs. Randle and Mrs. Crawford.

**Ahmedabad.**

"Barrow" Cup (Inter-Club).—

Messrs. Mehta and Karaka, Gujerat Club,

**POLO.**

**Indian Polo Championship (Calcutta).—**

The two teams left in were the Viceroy's Staff comprising Captains Benson, Astor, Tod and H. E. Atkinson (back) and the Travellers represented by Major Spencer, late 13th Hussars, Mr. Railston, 18th Lancers, Mr. Sallison Smith and Major Twist (back), both of the 13th Hussars.

Viceroy's Staff .. .. 8 goals.  
The Travellers .. .. 3 goals.

**Hyderabad Open Tournament.—**

Golconda .. .. 7 goals.  
Poona Horse .. .. 3 goals.

**Calcutta Jubilee Tournament.—**

17th Lancers .. .. 6 goals.  
Kishengarh .. .. 4 goals.

**Ezra Cup (Calcutta).**

Patiala "A" Team .. .. 7 goals.  
"Tigers" .. .. 4 goals.

**Hyderabad Junior Tournament.—**

Poona Horse "A" Team (Reed. 4) .. 5 goals.  
20th Deccan Horse .. .. 2 goals.

**The "Connell" Cup (Allahabad).—**

Royal Welsh Fusiliers .. .. 5 goals.  
3rd Skinner's Horse .. .. 3 goals.

**Mhow Challenge Cup.—**

Rutlam "A" Team .. .. 5 goals.  
Bhopal .. .. 4 goals.

**Rawalpindi (Murree Brewery Cup).—**

Rifle Brigade .. .. 6 goals.  
1st Lancers .. .. 3 goals.

**Lucknow Spring Challenge Cup.—(15th Hussars).—**

Royal Welsh Fusiliers .. .. 5 goals.  
6th Inniskilling Dragoons .. .. 4 goals.

**Royal Dragoons Challenge Cup (Lucknow).—**

4th Cavalry .. .. 2 goals.  
12th Cavalry .. .. 2 goals.

**"Country Life" Tournament (Lucknow).—**

13th Hussars .. .. 11 goals.  
16th Cavalry .. .. 9 goals.

**Barcelly Handicap Tournament.—**

Worcester Regiment won on total number of goals scored.

**Meerut Inter-Regimental Tournament.—**

17th Lancers .. .. 16 goals.  
1st King's Dragoon Guards .. .. 4 goals.

**Meerut Tournament.—**

King's Dragoon Guards .. .. 7 goals.  
13th Hussars "A" Team .. .. 4 goals.

**Autumn Tournament (Meerut).—**

King's Dragoon Guards .. .. 7 goals.  
13th Hussars .. .. 4 goals.

**"Country Life" Tournament (Secunderabad).—**

Royal Field Artillery .. .. 13 goals.  
Golconda (conceding 11) .. .. 5 goals.

**Barcelly Tournament.—**

Inniskilling Dragoons .. .. 9 goals.  
17th Cavalry "A" Team .. .. 8 goals.

**Cawnpore Challenge Cup.—**

2nd Lancers .. .. 8 goals.  
36th Jacob's Horse .. .. 2 goals.

**Punjab Polo Tournament.—**

King's Dragoon Guards .. .. 5 goals.  
37th Lancers .. .. 4 goals.

**Punjab Native Infantry Tournament.—**

Guides' Infantry .. .. 3 goals.  
24th Punjabis .. .. 2 goals.

**Aden Polo Cup.—**

Aden Gymkhana .. .. 4 goals.  
Somaliland Team .. .. Nil.

**Jubbulpore Spring Tournament for the Begum of Bhopal's Cup.—**

Remnants .. .. 9 goals.  
Cheshire Regiment .. .. Nil.

**Infantry Polo Cup (Delhi).—**

Royal Welsh Fusiliers .. .. 5 goals.  
5th Fusiliers .. .. 2 goals.

**Idar Challenge Cup (Bombay).—**

14th Hussars .. .. 6 goals.  
Yellow Hammers .. .. 5 goals.

**Idar Challenge Cup (Mount Abu).—**

Kishengarh .. .. 6 goals.  
Bikaner .. .. 5 goals.

**Bangalore Tournament.—**

26th Light Cavalry .. .. 6 goals.  
20th Deccan Horse .. .. 5 goals.

**Novice's Tournament (Bangalore).—**

7th Hussars "A" Team .. .. 8 goals.  
7th Hussars "B" Team .. .. 1 goal.



**Rajah Venugopal Tournament (Madras).—**

7th Hussars .. ..	5 goals.
Government House .. ..	2 goals.
28th Cavalry .. ..	6 goals.
Government House .. ..	<i>Nil.</i>
Murree Brewery Cup (Rawalpindi).—	
Rifle Brigade .. ..	6 goals.
1st Lancers .. ..	3½ goals.

**Poona Polo Tournament (Senior).—**

Poona Horse .. ..	5 goals.
Innisiskilling Fusiliers .. ..	3 goals.
King's Dragoon Guards Challenge Cup (Umballa).—	
K. D. G'S. "A" Team .. ..	4 goals.
Su baltern, K. D. G's. .. ..	3 goals.

**PAPERCHASING.****Calcutta Paperchase Cup —**

Mr. R. G. Ballantyne won on Farthing Bun

**Calcutta Ladies' Paperchase Cup.—**

Mrs. Dodds .. ..

**POINT-TO-POINT-RACES.****Bombay.**

Bombay Hunt Cup.—	
Mr. Max Rommel's Better Luck .. ..	1
Bombay Pony Hunt Cup.—	
Mr. E. C. Reid's Flyaway .. ..	1

**Madras.**

Madras Hunt—Light Weight.—	
Major T. H. Symon's Rufus (Owner) .. ..	1

**Heavy Weight.—**

Mr. F. Oswald James (Owner) .. ..	1
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**Ladies.—**

Mrs. W. W. Phillips' Cafe-au-lait (Mrs. Porteus) .. ..	1
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**Pony Point-to-Point.—**

Capt. P. Heffernann's Molly Malone, Major Symons .. ..	1
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**ROWING.****Poona Regatta. Poona vs. Madras.—**

Challenge Fours, one mile—Royal Connaught Boat Club comprising H. Mason, (bow), A. Seino 2, M. T. Turner 3, J. Du. L. Langrish (stroke) and G. V. Hickson (cox) beat the Madras Boat Club comprising G. G. Alexander

(bow), A. Anns 2, H. H. F. M. Tyler 3, D. L. Blunt (stroke) and A. O. Bentley (cox). Poona won by four lengths in spite of a good effort by Madras. Time 6 minutes, 25 seconds.

**Madras Boat Club Regatta.—**

Challenge Sculls, J. W. Madeley.

**RACQUETS.****Bombay Tournament.****Mixed Doubles.—**

Macbeth and Maneckji beat Lee and Majid, 3 games to 2. (15-2, 15-13, 10-15, 13-15, 15-12).

**Open Markers Singles.—**

Jamsetjee (Bombay) beat Maneckji, 3 games to 1 (7-15, 15-10, 15-0, 15-2).

**Lucknow Tournament.****Open Singles.—**

Mr. McConnell, R.H.A. beat Captain Crake, K.O.S. Bs., 3 games to 1.

**Club of Western India Tournament (Poona)—(Singles).—**

C. A. Eles 15-15-15 beat.

C. B. Munday 7-12.

**GOLF.****Calcutta.****Amateur Championship of India.—**

A. Mann winner (won also in 1907-09).

A. I. Steele Runner-up.

Whigam (Calcutta) beat.

Pitts-Tucker (eleven up and ten to play).

**Bombay.****'Forty Two' Medal.—**

J. A. Cherry.

**Golfer's Cup.—**

J. R. Landon.

**St. Andrew's Gold Medal.—**

M. F. Nicholson.

**St. Andrew's Silver Medal.—**

W. G. McKee.

**Calcutta Silver Medal.**

R. D. England.

**Golfer's Cup.—**

Curry beat Dawson.

**Nasik.****The Bombay Cup.—**

R. D. England .. ..

Capt. Adair .. ..	2
Capt. Monteith, McLeod and Major Nicholls .. ..	3

**The Nasik Cup.—**

B. H. Duxbury .. ..	1
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R. Kidd .. ..	2
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Lynch Bloss, Capt. Ogilvy and Watts tie.	3
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**President's Cup.—**

R. D. England .. ..	1
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Capt. Adair and Capt. Monteith tie .. ..	2
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**P. W. L. Cup.—**

N. C. Gude .. ..	1
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Capt. Monteith .. ..	2
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**Barrackpore.****The Merchants' Cup.—**

Messrs. Gillanders, Arbuthnot & Co. for the third year in succession.

**Ootacamund.****Team Championship.—**

Madras beat Secunderabad.

**TENTPEGGING.**

Indian Cavalry Tournament (Delhi).—  
Single Order.—  
11th K. E. O. Lancers.

Twenty-four Regiments entered.  
Sections.—  
11th K. E. O. Lancers.

**CRICKET.**

Quadrangular Matches at Bombay.—

Mahomedans beat Parsis by 18 runs.

Hindus beat Presidency by 7 wickets.

Hindus vs. Mahomedans, resulted in a draw in the final.

Punjab Commission Cup.—

17th Lancers (holders) .. 186 and 341.

Rifle Brigade .. 183 and 158.

17th Lancers won by 186 runs.

R. St. L. Fowler for 17th Lancers, 126 (2nd innings).

G. F. Earle for Rifle Brigade, 112 (1st innings).

Meston Cup Tournament (Naini Tal).—

United Provinces Police beat the U. P. Wanderers by an innings and 29 runs.

Inter University :—

Bombay beat Madras by 7 wickets.

Calcutta vs. Rangoon, at Calcutta.—

Calcutta won by an innings and 27 runs.

**ATHLETICS.****Calcutta.**

British Army and Amateur Championships.—

British Army Championship, 100 yards.—

Sergeant Miller, Royal Irish Rifles. Time—10 secs.

British Army Championship, 1,000 yards.—

Lance-Corpl. Roberts, 22nd King's Regt.

British Army Championship, 600 yards.—

Sergeant Miller.

British Army Championship, 1 mile.—

Lance-Corpl. Roberts. Time 4—mins. 41 secs.

Amateur Championship, half-mile.—  
J. Nath Aryans.

Amateur Championship, 440 yards.—

Lieut. H. Pattison, 3rd Royal Fusiliers.

Two Miles Bicycle Race (Amateurs).—

A. North.

Amateur Championship, 120 yards Hurdle Race.—

F. Ford.

Amateur Championship, 220 yards.—

H. H. Leado.

## The Indian National Congress.

By D. E. WACHA.

The Congress was practically founded in 1885 by the late Mr. Allar Octavian Hume, a retired member of the Indian Civil Service, and the son of the distinguished Joseph Hume, M. P., whose radicalism is so well known and who was one of the chief advocates of Retrenchment and Reform in the House of Commons in the forties or fifties. Mr. Hume had a distinguished career in the service. In his younger days when Collector and Magistrate at Etawah, he had rendered invaluable service in quelling the Mutiny in its incipient stage. For this service he was created a Civil Companion of the Bath, a rare honour in those days for a young Anglo-Indian Civil Servant. He retired from the service in 1883 after having honourably filled several high offices, the last of which was the Home Secretaryship of the Government of India. The policy of Lord Lytton's Government (1876-80) had aroused discontent in the country. The imposition of the Vernacular Press Act commonly known as the Black Act and the uncalculated hostilities with the Amir Sher Ali of Afghanistan which culminated in the Second Afghan War were the subject of much adverse criticism among the most moderate but enlightened Indians in all parts of the country. It was recognised in all quarters that the people should organise themselves by way of a conference to ventilate their grievances. Correspondence was passing among the Indian leaders of thought in the different provinces as to the formation of such a conference on a sound and permanent footing. The viceroyalty of Lord Ripon (1880-84) gave the necessary stimulus and encouragement. Thus by 1883, when Mr. Hume retired, the idea of the Conference had so far taken body and form that, with the sympathetic support of Mr. Hume, a Union was established after he had in 1883 the genuine support of many sterling friends of India in Parliament, especially John Bright and Mr. Stagg. Mr. Hume had been a silent but watchful observer of events and felt that he must give his active support to the movement, his heart being fully prepared to ameliorate the social, economical and political condition of the Indians. He was in close communication with the leaders in various provinces. Here it may also be worth while recording the fact that during the preliminary stage of the inception of the Congress Mr. Hume, who had retired to Simla, had had the opportunity of consulting Lord Dufferin on the subject and it is a fact that his Lordship was at one with the object and greatly encouraged Mr. Hume in his mission. Subsequently after 1888 his Lordship, for reasons of his own, which have never been authoritatively declared, chose to assume a hostile attitude toward the organisation but it was effectually met by the speech which Mr. George Yule made in December 1888 at the Congress of Allahabad.

### First Session.

Progress was so far made as to formulate the programme of a first meeting in Poona which at the time was the seat of great political activity. The Christmas week of 1885 was resolved upon for the inauguration of the Con-

ference. Unfortunately, when the preparations were being made cholera broke out in the City of Poona and it was deemed unsafe to invite delegates there. Accordingly the seat of the first assembly was hurriedly transferred to Bombay under the auspices of the Bombay Presidency Association, with its then active honorary secretaries, Messrs. Pherozeshah M. Mehta, Kashinath Trimbuk Telang and Dipsha Edulji Wacha. It was at the same time resolved to christen it "The Indian National Congress," having regard to the fact that its principal aim was faithfully to echo the public opinion of all India. So many misleading statements were made during the earliest years of the Congress as to its aims and objects that it may be useful to relate what they are as laid down by Mr. Hume himself in a speech he made at Allahabad in 1888, or the eve of the session of the Fourth Congress at that centre. Firstly, he prefaced his enumeration of the objects by stating that "no movement in modern historical times has ever acquired, in so short a period, such an appreciable hold on the minds of India, none has ever promised such wide reaching and beneficent results." Further on, it was observed that "the Congress movement is only one outcome, though at the moment the most prominent and tangible, of the labours of a body of cultured men, mostly born natives of India, who some years ago banded themselves together to labour silently for the good of India." As to the fundamental principles of the Congress they are:—

*Firstly*, the fusion into one national whole of all the different and discordant elements that constitute the population of India;

*Secondly*, the gradual regeneration along all lines, mental, moral, social and political of the nation thus evolved; and

*Thirdly*, the consolidation of union between England and India by securing the modification of such of the conditions as may be unjust or injurious to the latter country.

### The Split.

It was on the fundamental principles above stated that the Congress carried out its appointed work midst much representation, obloquy and even abuse, till 1907 when an extreme faction of delegates deliberately chose to raise a split in the united camp. At the Congress held in Surat in that year the session had to be abandoned owing to the violent outbreak of the factional spirit of those who since have been known as "Extremists," in contrast with the overwhelming majority of those entertaining sober views who are called "Moderates;" but if the proceedings were for the time abandoned, it was not without the leading men immediately organising themselves on the spot to take ways and means for the holding of future congresses and for the purpose of framing a written constitution of which the most important part was the creed of the Congress. In other words, the unwritten aims and objects of the Congress were reduced to writing in a crystallised form. As such it may

be repeated here, as it would dispel all doubts, misgivings or misunderstandings of the true aims and objects of the Congress.

"The objects of the Indian National Congress are the attainment by the people of India of a system of Government similar to that enjoyed by the self-governing members of the British Empire, and a participation by them in the rights and responsibilities of the Empire on equal terms with those members. These objects are to be achieved by constitutional means by bringing about a steady reform of the existing system of administration and by promoting national unity, fostering public spirit and developing and organising the intellectual, moral, economic and industrial resources of the country."

Every delegate to the National Congress is obliged by the Congress Committee of the province from which he is sent to express in writing his acceptance of the above creed and his willingness to abide by the Constitution and the rules framed under it.

### The Constitution.

This Constitution has been in full working order since 1908. It is unalterable save by a Resolution of a majority in Congress assembled. It provides a guiding or directing staff of chosen leaders selected by each province and annually confirmed from the platform of the Congress by the President. Ex-Presidents, Secretaries and other office-bearers are nominated *ex-officio* members and the whole Committee is known by the name of the All India Congress Committee. The provinces are the same as the territorial divisions of the Government of India. The Committee of each Province is called the Provincial Congress Committee on whom devolves the duty, under the constitution and the rules, of calling meetings for the election of delegates, suggesting subjects to be brought forward for the consideration of the Congress and all cognate matters. The Congress declares each year the close of the session where the next Congress is to be held. The town or city where it is to be held begins to make all preparations fully six months before the date of the holding of the session which has hitherto invariably been during the three days immediately succeeding Christmas Day. That period is specially selected owing to the great convenience it affords to all classes of delegates in the country to attend—a convenience not offered at any other time during a year. Reception Committee is formed with a leading person as its Chairman. The Committee divides its work among various sub-committees such as finance, correspondence, housing, feeding and so on. A band of young active persons volunteer to serve the different sub-committees. Formerly they were chiefly selected from among the student class but owing to the orders of Government in the Education Department, that students should take no active part in politics, volunteers are now wholly recruited from the circle of men of business or profession. They are well disciplined and have to obey the orders of their chief or 'captain.' They have a heavy duty to discharge during the active session, besides receiving delegates from various

centres on railway platforms and taking them down to their appointed lodgings. Volunteers are also posted among delegates to carry their messages or do such other work as may be needed. Thus they discharge honorarily a very important service with enthusiasm and alacrity and in a way learn discipline and the spirit of self-sacrifice. In his concluding address a President invariably makes honourable mention of the services of these Congress volunteers. The hardest work of a sub-committee consists of erecting the pendal or marquee for the holding of the Congress. Apart from the delegates who generally number from 500 as a minimum to 1,000 or so as a maximum, there is always a large number of visitors. So that the pendal is erected to contain at least 5,000 seats. There have been some notable Congresses when the number seated has come to as many as 10,000. That was the number which congregated in Bombay in 1889 when Sir William Wedderburn presided and was accompanied from London by the late Mr. Charles Bradlaugh who afterwards introduced the first Reform Bill of the expanded legislative Councils in Parliament in 1890. Delegates had had to pay a fee of Rs. 20 for attendance up till 1912, but the fee has since been reduced to Rs. 15. They are charged a very moderate fee for the days they are lodged and boarded. Some well-to-do delegates hire bungalows at their own expense, but the majority of delegates outside those of the province where a Congress is held, generally accept Congress accommodation which in smaller towns becomes a very serious and uphill task indeed. The supply of chairs and other paraphernalia is also a heavy task, but they all undertake it cheerfully as a matter of duty.

### A Session.

The spectacular effect of a large gathering in a capital town like Bombay or Calcutta or Madras is exceedingly pleasing, while the audience is invariably well-behaved. During the five hours a day of each of the three days proceedings, the stranger visiting the Congress, whether he is accommodated on the dais or the visitors' gallery, can hear every word of a good speaker. And generally, the pavilion is carefully erected so as to allow the voice of the speaker to reach every part of it. Care also is taken that there are as many ingresses and egresses as possible. A special gallery is generally reserved for purdah ladies who now-a-days are keen to attend the congress and watch its deliberations. Congress expenses at the very lowest estimate come to between Rs. 25,000 and Rs. 30,000 per annum. The funds are collected: (a) from donations of wealthy sympathisers of the Congress Movement in the province where the Congress is held; (b) from delegation fees, half of which is shared by the London organisation of the Congress known as the British Congress Committee; and (c) from issue of visitors' tickets. All expenses come out of these funds. There is rarely a balance left, sometimes there is a deficiency. The Reception Committee, as soon as convenient, issues a full report of the three days' proceedings of the Congress together with a list of the delegates who attended. For a few years an industrial exhibition was opened in

connection with the Congress which is the parent of the Industrial Conference. They were all very successful the most notable being the one held in Bombay on the occasion of the Congress there in 1904.

The most important function of the Reception Committee under the Constitution is to elicit the opinion of the different Provincial Congress Committees as to the selection of a capable President, a well known Congressman who has taken an active part from year to year in the work of the Congress, not only on the Congress platform, but in his own part of the country by way of propagating the aims and objects of the Congress and educating the people. The Provincial Committees are enjoined to send the names of the person or persons whom they would select, say, by the end of September of each year, to the Reception Committee of the place where the Congress is to be held. The name selected by the majority of that committee is accepted and is announced to all centres. The President-Elect receives official intimation of his selection and thereafter begins to prepare his "Address" reviewing the principal political events of the year and suggesting what important resolutions the Congress should pass. The President is always the honoured guest of the Reception Committee who provide a suitable lodging for him and cater for his comfort and convenience. He is waited upon by two or four volunteers who deem it a personal honour to have so waited on him. On his arrival he is generally received with an ovation and a public demonstration in the form of a procession. There have been distinguished presidents who have been so conveyed to their destination amidst the most enthusiastic cheers of the population, men, women and children.

On the opening day the President reaches the dais accompanied and followed by the Congress officers, namely, the General Secretaries, the Secretaries and Chairmen of the Reception Committee and the ex-Presidents who may be attending the Congress. As soon as they are seated, a gong is heard to announce the commencement of the sessions. The Chairman of the Reception Committee begins the proceedings by welcoming the delegates and touching upon the peculiarities of his city and on some provincial and other problems. Immediately thereafter the President is formally installed in the chair in terms of the Constitution. The chief proposer generally introduces him to the audience in a brief speech enumerating what he is and what he has done for the country. Next the President rises in his place amidst cheers and applause. Generally, the speech is written and printed. It is read, the reading generally occupying an hour and a half. He surveys the prevailing political situation, echoes Indian public opinion as expressed in the various organs during the year on problems of administration, and winds up with recommendations and suggestions for further reforms.

On the conclusion of the address a Subjects Committee from among the delegates is selected and announced from the Chair. Within half an hour or an hour at the most the Subjects Committee meet in a secluded part of the

pendal, strangers and delegates not on the Subjects Committee are requested to withdraw. The President becomes ex-officio the chairman of the Subjects Committee. Then they discuss the most important topics needing resolutions to be passed the following day. Here you see Congress delegates earnestly at their work. It is a kind of select committee of the House of Commons. Delegates, most eloquent debaters, are often to the fore and make short speeches. A draft resolution is hewed, hacked and eventually knocked into shape, votes being always taken by a show of hands, and the chairman announcing the ayes or the noes as the case may be. In this way generally half a dozen important resolutions are passed. It is the duty of the Congress Secretaries to see that they immediately go to the press and are ready after correction and revision for the next day's session at noon. The general duration of a Subjects Committee for two days in succession is fully three hours. Sometimes disputed or exceedingly controversial matters prolong it by another hour. Thus it will be seen that the real solid work of a Congress session is done at the meetings of the Subjects Committee which contain the pick of the delegates attending a Congress.

The proceedings of the session in open Congress are regulated by the rules of order and procedure adopted under the constitution. Amendments are permitted to any delegate provided he gives notice to the President on the dais during the course of the particular resolution which may be moved. Votes by a show of hands are taken for and against. There are rules for special voting but these are rarely invoked, the fact being that harmony generally prevails owing to the merits of a resolution having been fully threshed out at the Subjects Committee meeting. The principal speakers and supporters are all selected by the Subjects Committee, but a President may permit a speaker not named in the agenda. Generally speaking the speeches are mediocre. Rhetoric is absent save in some cases. There is ample eloquence and nine-tenths of the speeches are all extempore, of course the speakers preparing their principal observations beforehand. But what is known as 'manuscript eloquence' is exceedingly rare. At the close of the proceedings, generally on the evening of the third day, the President is voted thanks and he makes a suitable reply. The session is then dissolved after the customary announcement of the next place where it is to be held.

#### Results.

Up to 1913, there have been in all 29 sessions of the Congress including the inconclusive one of 1907. Of the oldest class of Congressmen, say since its institution in 1885, there are a few only, say, Sir Pherozeshah M. Mehta, the Hon'ble Mr. Surendranath Banerji, the Hon. Mr. M. M. Malaviya, the Hon. Mr. Gangaprasad Varma, Mr. D. E. Wacha, Mr. P. N. Mudholkar, Mr. D. A. Kharé and a few others. The composition of the Congress undergoes a change every few years. Looking back at the quarter of a century and more, it must be acknowledged that on the whole the Congress has done good solid work for the greater pro-

gress of the people. In reality it is a body of "Advanced Liberals" as Lord Lansdowne called it when he was Viceroy in India. As such its programme is always for Liberal reforms. It cannot be gainsaid that the two reforms between 1885 and 1909 for the Legislative Councils are principally owing to the continuous vigorous agitation of the Congress. The first reform took place in 1892 but it was discovered in a few years that the popular elective representation was inadequate, that there was no free discussion of the budget on the principle of taxation and representation, and that the privilege of interpellation, given in 1892, needed improvement and expansion. The Morley-Minto Reforms are entirely owing to the initiation and subsequent agitation of the Congress. It was also owing to the same organisation that the salt duty has eventually been reduced from 2½ to Rte. 1 per maund. The higher limit of exemption from the income tax was also recommended by the Congress. It uniformly advocated the importance of the construction of irrigation works in preference to railways. Its strictures on the past management of famine relief have been instrumental in bringing the Famine Relief arrangements almost to perfection. It is, again, almost wholly owing to Congress agitation that education of all kinds, especially primary and technical, have undergone an unprecedented development. Sanitation owes its present condition partly to the Congress. The hardships involved in the original drastic codes on excise and forests have been somewhat mitigated by reason of the earnest prayers of the Congress. Land revenue assessments have received continual attention from the Congress, which is more or less in favour of a settlement as near to permanency as possible. But the voice of the Congress is still crying in the wilderness as far as simultaneous examinations and the separation of judicial and executive functions are concerned. Its agitation is consistent and persistent. Its appeals on behalf of Indians in South Africa and elsewhere have always been earnest and accompanied by moderation. On currency problems it has hitherto failed to see eye to eye with the State. In short, it may be correctly said that a fairly large number of grievances of the people which the Congress has

voiced during the last 28 years have been redressed. The principal planks of its platform for some time are a great extension of the employment of Indians in the higher offices of the administration in reference to which the Public Services Commission is now taking evidence; retrenchment of military expenditure; fiscal independence; notably in the matter of the excise duty on indigenous cotton manufactures; reform in the administration of criminal justice, in which is included the separation of judicial from executive functions; and the equal privilege of Indians as citizens of the British Empire in all parts of His Majesty's Dominions.

#### **British Committee.**

It may be observed in conclusion that the Congress has an organisation also in London which is called the British Committee of the Congress. It is furnished with funds provided by the Indian National Congress. It has an establishment of its own and attached to it, though with independent income, an organ of opinion, called "India", which echoes the salient events of what may have happened every week in India. As such it performs useful service. It is well informed and is liberally circulated among members of Parliament who sympathise with Indian aspirations or take interest in the general progress and welfare of India. The Committee consists of retired Anglo-Indians and has been for years presided by that well-wisher and disinterested friend of India, Sir William Wedderburn, who was twice elected President of the Congress. The Committee invariably invites distinguished or leading Indians when in London to take part in its deliberations. The Committee itself is in constant touch with all proceedings in the House of Commons on Indian affairs and often helps members to put questions when needed. Some years ago it formed a standing committee of members of the House of Commons and an attempt is about to be made to revive it. The Committee also keeps itself in communication with the India Office and often acts as a vehicle of conveying Indian opinion to the Secretary of State. As such the organisation renders valuable service to Indian cause in England.

## The Moslem League.

The Indian Moslem League was established in 1906. Prior to that time the Indian Moslems had stood aloof from politics. Acting under the guidance of the greatest man they have produced, Sir Syed Ahmad, they devoted their attention to education, founding the Aligarh College with the special purpose of making up the leeway of Mahomedans in education, and left politics to the other Indian peoples. A few Mahomedans joined the National Congress and took part in its annual sessions; but the community as a whole stood aside from political movements.

In 1906 however changes occurred which impelled Indian Moslems to action. Under the Act of 1892, constituting the Indian Legislative Councils, there was no specific Moslem representation and in the elections which had taken place under that Act the Moslems had for all practical purposes failed to find selection. Therefore, when the amendment of the Act and the extension of the representative principle were under discussion, they were stirred to action. They feared lest, under an academic system, adapted only to a homogeneous people, their distinct communal interests would either secure no representation at all, or only inadequate representation. They therefore took counsel together and approached the Viceroy in deputation, headed by His Highness the Aga Khan, and presented their views in an important State paper. In this they laid stress on their position in the following passage:—

“Representative institutions of the European type are new to the Indian people—many of the most thoughtful members of our community, in fact, consider that the greatest care, forethought, and caution will be necessary if they are to be successfully adapted to the social, religious and political conditions obtaining in India—and that in the absence of such care and caution their adoption is likely, amongst other evils, to place our national interests at the disposal of an unsympathetic majority.”

Feeling that the Mahomedans were a distinct community, and that their interests had suffered because they had been under-represented, the deputation asked for representation on a communal basis, and for representation in excess of their actual numerical strength or account of the peculiar and historical position of the Moslem community. This request was accepted, and the Imperial and Provincial Councils embodied the principle of Mahomedan representation on a communal basis.

### First Constitution.

It was felt that in view of the changed conditions the Moslems should organise their own political society for the expression of their communal policy. This was the origin of the Moslem League. The rules and regulations of the League provided for a constitution, with provincial branches, and defined the objects of the League in the following language:—

The objects of the League shall be—

(a) to promote among Indian Musalmans feelings of loyalty towards the British Gov-

ernment, and to remove any misconception that may arise as to the intentions of Government with regard to any of its measures:

(b) to protect the political and other rights and interests of Indian Musalmans and to place their needs and aspirations before the Government in temperate language:

(c) without prejudice to the objects mentioned under (a) and (b) of this section, to promote so far as possible concord and harmony between the Musalmans and other communities of India.

### Revised Constitution.

In 1912 and 1913 Moslem opinion as expressed by the League underwent a certain change. First at a meeting of the Council, afterwards at the annual session which was held at Lucknow, the constitution was amended so as to include in the objects of the League the attainment of a system of self-government in India under the Crown. The objects of the League, as defined in the most recent publication, are thus set forth:—

The objects of the League shall be:—

(a) to maintain and promote among the people of this country feelings of loyalty towards the British Crown:

(b) to protect and advance the political and other rights and interests of the Indian Musalmans:

(c) to promote friendship and union between the Musalmans and other communities of India:

(d) without detriment to the foregoing objects, attainment under the aegis of the British Crown, of a system of self-government suitable to India, through constitutional means, by bringing about, amongst others, a steady reform of the existing system of administration, by promoting national unity, by fostering public spirit among the people of India and by co-operating with other communities for the said purposes.

This change in the constitution of the League produced much discussion and was opposed by many of the older men who had led the community.

### London Branch.

There is a branch of the Moslem League in London, of which the Right Hon. Syed Amir Ali is President. In the autumn of 1913 the London office bearers resigned, as the result of differences of opinion with two Indian Moslems who were visiting England, Mr. Mahomed Ali and Mr. Vazir Khan, the honorary secretary of the League. Syed Amir Ali thus described the nature of these differences: “an endeavour to capture the organisation here and to impose on it their own will. To both of these attempts I was, in the interests of the Mussulman Community, bound to take strong objection.” In response to strong pressure from the Provincial Leagues in India, the London office bearers resumed their posts and the London Branch of the League continues under the former personnel.

The headquarters of the League are at Lucknow.

## Failures of India Banks.

The latter part of 1913 witnessed the failure of a large number of Indian Banks conducted by Indian management. The affairs of these institutions have still to be wound up so that it is not yet possible to estimate the full extent of the losses incurred, nor is it possible yet accurately to determine in each case what was the cause of failure. The first of the series of failures occurred in September, in the Punjab, which had been in recent years a peculiarly fertile field for the promoters of Swadeshi Banks, and the crisis rapidly spread to Bombay where also a large number of banks has been started since 1907.

**The Peoples' Bank of India.**—On September 20 the Peoples' Bank of India, which had its headquarters in Lahore and 72 branches in various parts of India, suspended payment.

The Bank had a paid-up capital of Rs. 12,46,375 and had a reserve or other funds of Rs. 3,00,000. The full value of the share was Rs. 50 each; out of which only Rs. 30 per share had been called. It has paid dividends at the rate of 9 per cent. during the last three years.

Mr. Harkishen Lal had been Managing Director of the Bank since its beginning until he retired in August, 1913, owing to severe criticisms of his various financial and industrial concerns in the press. He subsequently presented a scheme for the reconstruction of the Bank, but a provisional order for liquidation was given, the final order being postponed until January, 1914.

**The Bank of Peshawar.**—On September 24, the Bank of Peshawar, which had been started at Gujranwala by a local pleader, suspended payment. It had a nominal capital of Rs. 5 lakhs.

**The Amritsar Bank.**—On September 20 the Amritsar Bank failed.

**The Hindustan Bank.**—This Bank suspended payment on October 2. Its nominal capital was Rs. 10 lakhs of which Rs. 6 lakhs were said to have been subscribed and Rs. 1½ lakhs paid up. The headquarters were at Multan and it had 25 branches.

**The Credit Bank of India.**—On October 3, this bank suspended payment. It was established in Bombay in 1909. The authorised capital was Rs. 1,00,00,000 while the subscribed capital was Rs. 50,00,000. The capital called up was Rs. 10,00,000 and reserve fund Rs. 32,000. The petition for its liquidation was heard on November 1, when the report on the affairs of the Bank, by Messrs. Ferguson and Co., to the Provisional Official Liquidator was presented. The Advocate-General, who appeared for the petitioner, said that the liabilities of the Bank were 41 lakhs or thereabouts and the anticipated assets were certainly not more than nine lakhs. Sir Dinsha Davar said in reference to the report that if half the allegations made in it were correct the Company was from its inception an organised attempt to swindle the public.

The manager of the Bank, Mr. Jaffer Joosab, was arrested on December 18, on a charge of

criminal breach of trust in respect of sums aggregating nearly Rs. 1 lakh.

**The Bombay Banking Co., Ltd.**—On October 7, this bank suspended payment. The head office was in Bombay and it had eight branches. The authorised capital was Rs. 5 lakhs of which Rs. 1,67,440 had been paid up less about Rs. 46,000 calls in arrears.

**The Kathiawar and Ahmedabad Banking Corporation, Ltd.**—This Bank suspended payment on November 3. The head office was at Ahmedabad and it had 18 branches. The authorised capital was Rs. 1,00,00,000; capital subscribed Rs. 21,64,500 and capital called up Rs. 8,45,620.

**The Karachi Merchants Bank, Ltd.**—On November 5, this bank suspended payment.

**The Lahore Bank, Ltd.**—This Bank suspended payment on November 18. It was the third of the indigenous Banks in point of age, having been started in 1906 by Haridas Kapur, formerly an employee of a local European Bank who joined Harkishen Lal in starting the People's Bank and was its first manager. Subsequently he started his own bank and became its managing director. The authorised capital of the Bank was five lakhs and the subscribed capital four lakhs ninety thousand. It had fifteen branches in the Punjab and one at Karachi.

**The Indian Exchange Bank, Simla.**—This bank suspended payment on November 20.

**The Industrial Bank, Ltd.**—Payment was suspended on November 26. The Bank was started in 1907 and had a working capital of Rs. 4 lakhs.

**The Indian Specie Bank, Ltd.**—On November 21, a petition was presented for winding up this Bank, but was withdrawn. Sir Dinsha Davar, the Judge who heard the petition, said:—"I should like to say that it struck me as a most remarkable circumstance that shareholders representing a capital of three quarters of a crore of rupees and creditors to the extent of a crore of rupees should come forward together to support the directors and the managing director in the manful fight they have made for the existence of the Bank. In spite of allegations of very hazardous trading not one single shareholder or contributory or creditor has come forward to support the petition. That seems to me to be a very remarkable circumstance in the history of the Bombay banking and trade. The petition will stand dismissed."

The Manager of the Bank, Mr. Chunilal Saraiya, died suddenly on November 29 and a petition was immediately made by four of the directors for the winding-up of the Bank on the ground that the Bank had not sufficient cash to pay the liabilities due on that day. The cash in hand was Rs. 60,000 and the liabilities to be met that day amounted to Rs. 1,50,000. The report of the provisional liquidators, published December 19, showed that the bullion account was debited with Rs. 23.7 lakhs, against which there were about 4,560 oz. of Silver; that the firm of M. Nanabhai & Co. was debited with Rs. 84 lakhs; that there was



a loss of Rs. 80 lakhs on open silver contracts; that Rs. 64.7 lakhs had been advanced on pearls; and that Rs. 27.2 lakhs had been advanced on share *badia* business, the market value of those securities being, when the report was published, under Rs. 12 lakhs. The story unfolded in this report was, according to the Liquidators, "a miserable tale of the lowest form of fraud, the creation of fictitious debtors, and the preparation of Demand Promissory Notes in support of these." They also stated that "the accounts submitted each half-year were rendered falsely to the shareholders and the means of manipulation were usually applied through M. Nanabhoj's account. False entries were carried through the Books to and from the account of this dummy silver king, by which silver operations were disguised as debtors for loans in whose hands were placed bogus Demand Promissory Notes for presentation to the Auditors. When the Audit was safely over the disguised figures disappear

and the mysterious Mr. Nanabhoj resumed his manipulations of the Silver Market."

After the presentation of this report, Sir Dinsha Davar, in spite of a request that the shareholders and others might be given time more fully to consider the situation, passed an order for winding up the Bank.

**The Pioneer Bank.**—On November 29, a petition was presented in the Bombay High Court for the winding up of this Bank. The grounds of the petition, which was accepted, were that the company was a bogus one and that the substratum had already been lost through doubtful transactions. The petitioner expressed the belief that hardly a lakh of the capital of the Bank had been subscribed by *bona fide* shareholders, and that against this more than two lakhs had been advanced as loans on the shares of the company. The Bank was registered with Rs. 50 lakhs capital, divided into shares of Rs. 25. <sup>(c)</sup>

## Trade of India in 1913-14.

The financial year in India closes on the 31st of March, and the completed trade returns are made up to that date. The principal features of the trade of India in the last financial year of which complete figures are available, namely 1912-13, are described on pages 196-200 of this Year Book. In addition, the Government of India publish every month a statement of the trade of India both for the current month and for the preceding months of the financial year. The last of the returns available at the time of going to press was for the month of October 1913 and for the seven months, 1st of April to the 31st October 1913. We give below a brief summary of the trade figures for the seven months as indicating the current tone of Indian commerce:—

The imports for the seven months amounted to Rs. 1,05.38 crores and the exports to Rs. 139.42 crores. The imports increased by Rs. 15.93 crores and the exports decreased by Rs. 1.39 crore.

Taking the imports of foreign merchandise in greater detail, we find that under the first section into which this trade is divided, namely articles of food, drink and tobacco there is an increase during the seven months as compared with 1912 of Rs. 20.98 lakhs. The largest item in this increase was provisions and oilman's stores, which were larger by Rs. 13.91 lakhs. In the second heading, raw materials and produce and articles mainly unmanufactured, there was a decline of Rs. 168.37 lakhs. The principal item in this falling off was in textile materials which were less in value by 203.25 lakhs. In the third section, articles wholly or mainly manufactured, there was an increase of 1711.03 lakhs. The principal contributors to this increase were machinery of all kinds Rs. 174.30 lakhs, iron and steel and manufactures thereof an increase of Rs. 270.22 lakhs, metals other than iron and steel an increase of Rs. 115.39 lakhs,

Railway plant and rolling-stock an increase of Rs. 241.43 lakhs, and yarns and textile fabrics an increase of Rs. 656.98 lakhs. This trade increase however is not wholly healthy, because the arrivals of textiles were good deal larger than the consumption, and at the close of the year the stocks of Indian and imported piece-goods were so large as to be a source of serious embarrassment and depression in the market.

The exports of foreign merchandise are not a very big item in the Indian trade returns, and they show a decline during the seven months of Rs. 25.36 lakhs. The principal export trade is, of course, in Indian merchandise, and the exports during the seven months declined by Rs. 114.42 lakhs. The first section into which this trade is divided is in articles of food, drink and tobacco. Here there was a decline of Rs. 841.85 lakhs, grain, pulse and flour falling off by Rs. 903.67 lakhs whilst tea was larger by Rs. 106.40 lakhs. In the second heading, raw materials and produce and articles mainly unmanufactured, there was an increase of Rs. 803.40 lakhs. Exports of hides and skins were smaller by Rs. 37.53 lakhs, seeds smaller by Rs. 60.01 lakhs, while, on the other hand, exports of textile materials were larger by Rs. 890.09 lakhs, and metallic ores and metals for re-manufacture larger by Rs. 19.09 lakhs. In the third group, articles wholly or mainly manufactured, there was falling off in the exports for the seven months of Rs. 83.72 lakhs. Chemicals, drugs and medicines were less by Rs. 460.65 lakhs; dressed hides and skins and leather by Rs. 10.76 lakhs, whilst the increase in the exports of yarn and textile fabrics was Rs. 366.47 lakhs.

### Distribution of Trade.

The distribution of Indian trade during the six months, April to September, is shown in the following tables:—

#### IMPORTS.

		Six months, 1st April to 30th September.	
		1912.	1913.
EUROPE—		Rs.	Rs.
United Kingdom	..	45,92,29,283	58,03,53,236
Russia	..	13,16,460	1,15,868
Norway and Sweden	..	42,84,832	37,23,787
Germany	..	4,70,29,773	5,89,70,030
Holland	..	67,66,060	71,98,523
Belgium	..	1,29,97,014	2,12,41,898
France	..	1,00,12,252	1,27,92,874
Italy	..	70,66,836	1,08,11,089
Austria-Hungary	..	1,23,39,368	1,94,02,210
Other Countries	..	43,20,845	50,60,753
Total		56,53,62,732	71,96,70,268

IMPORTS—*contd.*

						Six months, 1st April to 30th September.	
						1912.	1913.
						Rs.	Rs.
<b>ASIA—</b>							
Turkey .. .. .						19,43,607	9,27,925
Aden and Dependencies .. .. .						31,32,845	21,97,254
Arabia .. .. .						21,09,116	32,45,398
Persia .. .. .						29,38,301	28,09,592
Ceylon .. .. .						33,16,323	37,02,580
Straits Settlements .. .. .						1,53,02,717	1,77,37,681
Borneo, Java and Sumatra .. .. .						5,43,58,339	5,50,11,484
Siam .. .. .						12,38,264	12,10,228
Hongkong .. .. .						50,00,273	51,53,787
China (exclusive of Hongkong and Macao) .. .. .						1,16,55,407	84,56,401
Japan .. .. .						1,90,68,015	2,37,24,001
Other Countries .. .. .						43,55,695	54,90,966
Total ..						12,44,18,902	12,96,67,297
<b>AFRICA AND ADJACENT ISLANDS—</b>							
Egypt .. .. .						14,32,540	12,45,710
Portuguese East Africa .. .. .						6,19,181	7,01,890
Mauritius and Dependencies (including Seychelles) .. .. .						1,38,73,655	68,62,169
East African Protectorate (including Zanzibar and Pemba) .. .. .						16,11,050	12,40,690
Other East African Ports .. .. .						4,96,517	558,834
Other Countries .. .. .						8,58,324	14,38,031
Total ..						1,88,91,207	1,17,42,324
<b>AMERICA—</b>							
United States of America .. .. .						3,16,75,167	2,36,40,185
South America .. .. .						139	11,278
Other Countries .. .. .						2,051	17,213
Total ..						3,16,77,357	2,36,68,074
<b>Australia and Oceania .. .. .</b>						4,19,662	35,52,855
Grand Total ..						74,43,69,920	88,83,01,418
<b>EXPORTS.</b>							
<b>EUROPE—</b>							
United Kingdom .. .. .						30,38,05,474	26,90,67,201
Russia .. .. .						83,68,144	88,78,579
Germany .. .. .						12,42,11,152	11,27,11,146
Holland .. .. .						1,85,12,471	1,79,20,846
Belgium .. .. .						8,45,47,422	5,91,00,526
France .. .. .						7,45,98,516	7,01,23,922
Spain .. .. .						62,64,746	81,36,325
Italy .. .. .						3,92,43,947	3,49,00,059
Austria-Hungary .. .. .						3,51,60,887	4,22,19,877
Turkey .. .. .						11,65,383	4,11,605
Other Countries .. .. .						69,30,150	50,57,744
Total ..						70,27,50,052	62,85,31,830

# The Trade of India in 1913-14.

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## EXPORTS.

		6 months, 1st April to 30th September,	
		1912.	1913.
<b>ASIA—</b>			
Turkey .. .. .		1,05,45,659	1,19,88,644
Aden and Dependencies .. .. .		58,28,413	61,28,415
Arabia .. .. .		32,47,345	57,17,032
Persia .. .. .		17,66,831	25,85,878
Ceylon .. .. .		4,09,25,243	4,05,90,444
Straits Settlements .. .. .		4,49,49,227	3,32,38,660
Borneo, Java and Sumatra .. .. .		1,34,09,511	1,20,66,781
Siam .. .. .		29,85,570	45,22,926
Indo-China .. .. .		15,37,129	31,87,081
Hongkong .. .. .		4,98,70,583	3,86,78,146
Gara (exclusive of Hongkong and Macao) .. .. .		4,76,20,977	2,47,23,737
Japan .. .. .		8,28,85,550	11,50,66,360
Other Countries .. .. .		80,04,651	40,41,731
Total .. .. .		31,35,76,689	30,25,35,835
<b>AFRICA AND ADJACENT ISLANDS—</b>			
Egypt .. .. .		1,02,58,000	4,70,30,881
Cape Colony .. .. .		20,40,340	18,74,496
Natal .. .. .		42,95,438	46,86,371
Portuguese East Africa .. .. .		28,31,296	25,48,598
Mauritius and Dependencies (including Seychelles) .. .. .		62,65,844	62,22,104
East African Protectorate (including Zanzibar and Pemba) .. .. .		36,31,119	34,00,281
Other East African Ports .. .. .		40,29,035	37,81,885
Other Countries .. .. .		7,08,856	0,66,317
Total .. .. .		3,40,59,928	7,07,28,933
<b>AMERICA—</b>			
Canada .. .. .		65,56,992	65,21,885
United States of America .. .. .		7,98,08,951	8,97,72,139
West Indies .. .. .		23,70,763	25,82,837
South America .. .. .		1,86,31,618	2,68,08,344
Other Countries .. .. .		10,161	40,081
Total .. .. .		10,73,78,485	12,58,16,186
<b>Australia and Oceania .. .. .</b>		1,80,54,619	2,18,56,616
Grand Total .. .. .		1,17,58,19,773	1,14,94,69,400

## The Religions of India.

India is a land of many religions. All the great religious faiths of mankind are represented in its population by communities, whose origin carries us back to the early history of their respective creeds. Hinduism and its offshoots, Buddhism and Jainism, are autochthonous. The Jews of Cochin have traditions which carry back their arrival on the coast to the time of their escape from servitude under Cyrus in the sixth century B. C. The Syrian Christians of Malabar ascribe the introduction of Christianity and the establishment of their original Church to the Apostle St. Thomas, in the year 52 A.D. Nearly two centuries before the followers of Mahomed obtained a footing in India as conquerors, a peaceful trading colony of Arabs had settled on the Malabar coast. The Parsi settlement in Gujarat dates from about the same period. These facts are recalled here because not only Europeans but even educated Indians, speak as if the first foreign settlement in India was that which followed the Mahomedan conquest, and that Christianity was first brought to the country by the Portuguese. They also dispose of another erroneous idea that up to the time of the Mahomedan conquest, Hinduism absorbed all the foreign elements which found their way into the country. No doubt Greeks, Bactrians and Scythians were so absorbed into the structure of Hinduism, but the fact that the Jews, the Syrian Christians and the Parsis have remained distinct from Hinduism, shows that this was not the case universally. If we may hazard a conjecture, it would seem that the ancient Hindu policy towards immigrants who came by land differed from that observed in the case of immigrants by sea. The Indo-Aryan himself entered the country through the mountain passes in the North-West, and knew something of the land which lay beyond. But the sea was always something of a mystery and a terror to him, and those who came from beyond the sea were looked upon as beings of a different clay. They were treated hospitably, and in course of time they assimilated much of the influences of their Hindu environment. But they remained all the same separate communities, and no attempt was made to incorporate them in the great mass of Hinduism.

**Hinduism.**—The Hindus number 217,575,348 or 69·4 per cent. of the total population of India. Buddhists and Jains together number 11,907,789. Thus 229,513,137 or about 73 per cent. of the Indian people depend for their spiritual sustenance on Hinduism and its offshoots.

The Buddhist population is mostly Burmese, Buddhism having ceased a thousand years ago to count as a leading religion in the land of its birth. Several reasons are usually given to account for the hostility of Hinduism to Buddhism such as that Buddha denied the authority of the Vedas and the existence of God and of the human soul. Jainism did all this, and yet Jains to-day occupy a recognised position in the Hindu social system. The real reason for the Hindu hostility to Buddhism was that it influenced and was in its turn influenced by, in the later years of its prevalence in India, the alien Mongolian consciousness. Hinduism has always been extremely tolerant of indigenous heresies, but it is jealous of outside influence. Indian Buddhism, too, had become

extremely corrupt and superstitious long before Hinduism re-established itself as the religion pre-eminently of the Indian people.

The term "religion" as applied to Hinduism does not adequately express its scope and method. Hinduism has no settled creeds which are obligatory on every Hindu. It enforces no fixed and uniform moral standards on the innumerable sects and castes which bear its name. It extends its suffrages to monogamous, polygamous and even polyandrous unions between the sexes and, in the case of the so-called *devadasis*, countenances a life of open irregularity. An Indian newspaper recently instituted an interesting discussion on the question "Who is a Hindu." An eminent Hindu lawyer, who subsequently rose to be a judge of one of the Indian High Courts, laid down that a Hindu was one to whom the Indian Courts would apply the Hindu law. The learned lawyer, however, forgot that there are Mahomedan castes which follow the Hindu law in regard to the inheritance of and succession to property.

And yet, though Hinduism refuses to conform to almost every one of the ideas which we usually associate with the term "religion," it is impossible to deny that it occupies a unique and highly important place amongst the religious systems of the world. The reason why it does not fit into our definition of religion is that it represents a fundamentally different line of evolution in the history of religious thought. In other races the line of evolution was from polytheism to monotheism, but in India it was from polytheism to the higher pantheism. Contrasting the development of the Judaic idea of God with that of the Hindus, Dr. Harold Haffding observes. "With the Hindus there was no God who claimed sole sway; they went back to the power which makes all gods what they are, to the inner aspirations and needs which find vent for themselves in prayer and sacrifice. Following an extremely remarkable line of thought, that which drives men to worship gods was itself regarded as the true divine power. Brahma meant originally the magical, creative word of prayer, but it afterwards came to denote the principle of existence itself, so that we have a transition from the idea of motion towards that of its goal, from prayer to the object addressed in prayer." The Indian philosopher saw the whole universe transfused and overspread with Deity. He perceived how evil was being perpetually transformed to good in the cosmic process spreading out before the poet and the philosopher, endless and timeless, to whom the evil and the good seemed but different stages in a great common process of which the secret was known only to the Supreme Being. No European writer has caught the innermost essence of the Hindu philosopher's idea of the Supreme, so faithfully, and expressed it so felicitously as Sir Edwin Arnold in his "Light of Asia."

Before beginning, and without an end,  
As space eternal and as surety sure,  
Is fixed a Power divine which moves to  
good,

Only its laws endure.  
It is not marred nor stayed in any use,  
All liketh it; the sweet white milk it brings

STATISTICS OF RELIGIONS.

Religion	India.	British Provinces.	Native States.
INDIA	315,156,306	244,267,542	70,888,854
Hindu .. .. .	217,386,892	163,621,431	53,965,461
Brahmanic	217,337,943	163,331,380	53,956,563
Arya .. .. .	243,445	234,841	8,604
Brahmo .. .. .	5,504	5,210	294
Sikh .. .. .	3,014,466	2,171,908	842,558
Jain .. .. .	1,248,182	458,578	789,604
Buddhist .. .. .	10,721,453	10,644,400	77,044
Zoroastrian (Parsi) .. .. .	100,096	86,155	13,941
Musalman .. .. .	66,647,299	57,423,889	9,223,410
Christian .. .. .	3,876,203	2,492,284	1,383,919
Jew .. .. .	20,080	18,524	2,456
Animistic .. .. .	10,295,168	7,318,024	2,947,144
Minor Religions and Religion not returned .. .. .	37,101	2,340	34,761
Not enumerated by Religion .. .. .	1,608,556	....	1,608,556

POPULATION ACCORDING TO RELIGION AND EDUCATION (CENSUS OF 1911).

Religions.	Males.			
	Total Population.	Illiterate.	Literate.	Literate in English.
Hindu .. .. .	110,865,731	99,642,597	11,223,134	1,013,596
Sikh .. .. .	1,734,773	1,550,610	184,163	11,490
Jain .. .. .	643,553	324,968	318,585	13,030
Buddhist .. .. .	5,286,142	2,151,761	2,134,381	21,767
Parsi .. .. .	51,123	11,128	39,995	25,334
Muhammadian .. .. .	34,709,365	32,310,590	2,389,766	176,051
Christian .. .. .	2,010,724	1,422,154	588,570	252,591
Animistic .. .. .	5,088,241	5,034,408	53,833	1,521
Minor and Unspecified .. .. .	28,818	22,430	6,388	2,981
Total Males .. .. .	160,418,470	143,479,655	16,938,815	1,518,361
	Females.			
	Total Population.	Illiterate.	Literate.	Literate in English.
Hindu .. .. .	106,720,714	105,005,904	814,810	23,659
Sikh .. .. .	1,279,677	1,262,387	17,280	238
Jain .. .. .	604,629	580,509	24,120	209
Buddhist .. .. .	5,435,086	5,117,748	317,338	1,383
Parsi .. .. .	48,973	17,755	31,218	8,347
Muhammadian .. .. .	31,883,812	31,746,005	137,807	3,940
Christian .. .. .	1,865,472	1,613,177	252,295	112,643
Animistic .. .. .	5,129,303	5,126,316	2,987	74
Minor and Unspecified .. .. .	29,263	26,355	2,908	1,533
Total Females .. .. .	152,996,919	151,396,156	1,600,763	152,026
Total Population .. .. .	313,415,389	294,875,811	18,539,578	1,670,387

To mothers' breasts, it brings the white drops too,

Wherewith the young snake stings.

It slayeth and it saveth, nowise moved

Except unto the working out of doom;

Its threads are Love and Life; Death and Pain

The shuttles of its loom.

It maketh and unmaketh, mending all;

What it hath wrought is better than had been;

Slow grows the splendid pattern that it plans

Its wistful hands between.

The ethical values of Hinduism are not different from those of other great religions. Like them it attaches little importance to the qualities which make for worldly success, and most importance to self-sacrifice, humility and kindness to all. Only its methods differ. It has admitted people in every grade of civilisation or barbarism to its fold in the hope that they will in the long run assimilate the cleaner practices of the higher castes. That this expectation has to some extent been fulfilled, cannot be denied by any one who knows the great ambition of the castes lower down in the social scale to imitate the higher. This has sometimes led to bitter quarrels and even bloodshed. On the whole, however, the Hindu socio-religious scheme, owing to its tendency to make the individual human being a passive instrument in the hands of a higher Power instead of an active co-operator with it, has favoured stability at the expense of progress.

Hinduism is made up of many sects and cults. These sects are of diverse origin. There are sects which have arisen out of different interpretations of the teaching of the ancient Hindu scriptures as regards the relation of the individual to the Universal Soul; there are sects which centre round the worship of one of the many deities of the Hindu pantheon; and there are sects which bear the names and rest on the precepts of saints and sages who flourished at different times. In some cases, as in that of the Lingayaths, a religious sect has solidified into a secular caste. As a rule, however, there is no definite relation between castes and the religious sects, although whole castes tend to take to some common cult.

#### Other Indigenous Religions

Buddhism and Jainism were originally only sects of Hinduism. Jainism even now is not so sharply divided from the latter religion as Buddhism is. Jains are everywhere a recognised section of Hindu Society, and in some parts of the country there has been an increasing tendency on their part to return themselves at the Census as Hindus. The outstanding feature of Jainism is the extreme sanctity in which all forms of life are held. The Jains are

generally bankers and traders. Their number at the last Census was 1,248,182, the apparent decline being due to the tendency noted above for Jains to return themselves as Hindus. Buddhism is professed but by few persons in India. The Buddhist population of the Indian Empire is mainly Burmese. Their number is 10,721,453. The founders of Buddhism and Jainism are believed to have been contemporaries, whose date is assigned somewhere in the 5th Century B.C. Sikhism, which is the next important indigenous religion, had its origin many centuries later. The founder of Sikhism, Guru Nanak, flourished in the latter half of the 15th Century of the Christian era. Nanak's teaching amounted to nothing more than pure Theism. He taught that there is only one true God, he condemned idolatry, proclaimed the futility of pilgrimages and rites and ceremonies, and declared that the path to salvation lies through good deeds combined with devotion to the Supreme Being. He preached the brotherhood of men. Sikhism continued to exist as a pacific cult till about the end of the seventeenth century, when the persecutions of Aurangzeb had the effect of converting it into a militant creed. This momentous change was accomplished under the direction of Guru Govind, the tenth and last of the Gurus: "I shall send a sparrow," he once exclaimed and "to the imperial falcons will fly before it." On his death-bed, he exhorted his followers to regard the Granth, the sacred book of the Sikhs, as their Guru, to look upon it as the person of the living Guru. After his death, Sikhism passed through a period of deepest gloom, but it soon recovered and in 1758 the Sikhs entered Lahore in triumph. The teachings of Guru Nanak have profoundly affected Hindu thought and life in the Punjab, though the number of persons professing the Sikh religion is only 3,013,991 according to the 1911 Census. This represents an increase of over 40 per cent, since 1901. Two other religious movements, offshoots of Hinduism, remain to be mentioned, namely, the Brahmo-Samaj and the Arya-Samaj. Both of them are less than one hundred years old. The founder of the former was Raja Ram Mohan Roy, and of the latter, Swami Dayanand Saraswati. The Brahmo-Samaj does not believe in an infallible scripture, while the Arya-Samaj accepts the Vedas as Divinely revealed. Both the movements are opposed to idolatry and favour social reform. The Brahmo movement, appealing as it does to the cultured intellect, has not been making as much progress as the Arya Samaj. The number of persons professing each of these creeds is 5,504 and 243,445 respectively. The stronghold of the Arya-Samaj is the Punjab, that of the Brahmo Samaj, Bengal.

#### NON-INDIAN RELIGIONS.

##### Mahomedanism.

Of non-Indian religions, that is, of religions which had their origin outside India, the religion which has the largest number of followers in this country is Mahomedanism. One hundred years before the Mussulmans obtained a foothold in Sind by right of conquest, they were settled in Cochin as traders and missionaries. The author of Cochin Tribes and Castes refers

to a tradition that in the 7th Century, a Mahomedan merchant named Malak Medina, accompanied by some priests, had settled in or near Mangalore. The Kollam era of Malabar dates, according to popular tradition, from the departure of Cheruman Perumal, the last of the Perumal Kings, to Arabia, on his conversion to Islam. The date of the commencement of the era is the 25th August 825 A.D. For

OCCUPATIONS OF THE INDIAN PEOPLES.

INDIA .. .. .	313,470,014
A.—PRODUCTION OF RAW MATERIALS .. .. .	227,030,002
I.—Exploitation of the Surface of the Earth .. .. .	226,550,483
Pasture and agriculture .. .. .	224,695,900
(a) Ordinary cultivation .. .. .	216,787,137
(b) Growing of special products and market gardening .. .. .	2,012,503
(c) Forestry .. .. .	672,093
(d) Raising of farm stock .. .. .	5,176,104
(e) Raising of small animals .. .. .	48,063
Fishing and hunting .. .. .	1,854,583
II.—Extraction of Minerals .. .. .	529,609
Mines .. .. .	375,927
Quarries of hard rocks .. .. .	75,424
Salt, etc. .. .. .	78,258
B.—PREPARATION AND SUPPLY OF MATERIAL SUBSTANCES .. .. .	58,101,121
III.—Industry .. .. .	35,323,041
Textiles .. .. .	8,308,501
Hides, skins and hard materials from the animal kingdom .. .. .	698,741
Wood .. .. .	3,799,892
Metals .. .. .	1,861,445
Ceramics .. .. .	2,240,210
Chemical products properly so called, and analogous .. .. .	1,241,587
Food industries .. .. .	3,711,675
Industries of dress and the toilet .. .. .	7,750,609
Furniture industries .. .. .	39,268
Building industries .. .. .	2,082,493
Construction of means of transport .. .. .	66,056
Production and transmission of physical forces (heat, light, electricity, motive power, etc.) .. .. .	14,384
Industries of luxury and those pertaining to literature and to arts and sciences .. .. .	2,141,665
Industries concerned with refuse matter .. .. .	1,388,515
IV.—Transport .. .. .	5,023,9
Transport by water .. .. .	982,764
Transport by road .. .. .	2,781,933
Transport by rail .. .. .	1,062,493
Post Office, telegraph and telephone services .. .. .	201,781
V.—Trade .. .. .	17,839,102
Banks, establishments of credit, exchange and insurance .. .. .	1,220,187
Brokerage, commission and export .. .. .	240,858
Trade in textiles .. .. .	1,277,469
Trade in skins, leather and furs .. .. .	296,712
Trade in wood .. .. .	224,838
Trade in metals .. .. .	59,766
Trade in pottery .. .. .	101,981
Trade in chemical products .. .. .	171,927
Hotels, cafes, restaurants, etc. .. .. .	719,052
Other trade in food stuffs .. .. .	9,478,868
Trade in clothing and toilet articles .. .. .	306,701
Trade in furniture .. .. .	173,413



about twelve Centuries, Islam has existed in India side by side with Hinduism. During that period it has been greatly influenced by Hindu ideas and institutions. Moreover, the Indian converts to Mahomedanism have to a large extent retained the customs and beliefs of Hinduism. The writer of the article on religions of India in the new edition of the *Imperial Gazetteer* observes of Islam in India: "If it has gained some converts from Hinduism it has borrowed from it many of those practices which distinguish it from the original faith of Arabia. By degrees the fervid enthusiasm of the early raiders was softened down; the two religions learned to live side by side; and if the Mohomedan of the later days could never conceal his contempt for the faith of his 'pagan' neighbours, he came to understand that it could not be destroyed by persecution. From the Hindu Islam derived much of its demonology, the belief in witchcraft, and the veneration of departed Pirs or Saints. The village Musulman of the present day employs the Hindu astrologer to fix a lucky day for a marriage, or will pray to the village god to grant a son to his wife. This is the more natural, because conversion to Islam, whenever it does occur, is largely from the lower castes." Mahomedanism has two main and several minor sects. The major sects are the Shiah and the Sunni. The great majority of Indian Mussulmans are of the latter sect. The Punjab and Sind in the North-West and East Bengal in the North-East are the strongholds of Islam in India. The Mussulman population of India, according to the Census of 1911, is 66,581,824. Of this number no less than 24 millions are in Bengal, about 12 millions in the Punjab, and about 5 millions in the United Provinces. Amongst Native States, Kashmir is the largest Mussulman population about 2½ millions.

#### Christianity.

Indian Christianity has an even longer history than Indian Mahomedanism. According to the tradition prevailing among the Syrian Christians in Malabar, the introduction of Christianity and the establishment of the Original Church in Malabar in the year 52 A.D. are ascribed to the Apostle St. Thomas, who landed at Cranganore or Musiris, converted many Brahmins and others, ordained two Presbyters, and also founded seven churches, six in Travancore and Cochin, and the seventh in South Malabar (Cochin Castes and Tribes, Vol. II, Chapter XVI, p. 435). The history of Roman Catholicism in India dates from the beginning of the sixteenth Century. The first Protestant mission was established two centuries later by the Lutherans who started their work in Tranquebar in South India under Danish protection. The Christian population, according to the last Census, numbers 3,872,923. Nearly 2½ millions are inhabitants of the Madras Presidency and the Native States connected with it. Bihar and Bombay have each over 200,000 Christians.

#### Zoroastrianism.

This religion was brought, or brought back

to India in 717 A.D. by Parsis who, fleeing from persecution at the hands of the Mussulman conquerors of their native land, arrived at the little port of Sanjan, sixty miles north of Bombay in that year. According to the Indian antiquarian scholar, the late Rajendralal Mitra, the ancestors of the Hindus and Parsis dwelt together in the Punjab, when a religious schism led to the latter retracing their steps to Persia. This theory derives probability from the names of the beneficent and malefic deities referred to in the Hindu and Parsi sacred books: "What is most striking in the relations of the two faiths, is," writes Mr. Crooke in his article on the Religions of India in the *Imperial Gazetteer*: "that in the Avesta the evil spirits are known as Daeva (modern Persian Div), a term which the Indo-Aryans applied, in the form Deva, to the spirits of light. By a similar inversion, Asura, the name of the gods in the Rig Veda, suffered degradation and at a later date was applied to evil spirits; but in Iran, Asura was consistently applied in the higher sense to the deity, especially as Ahura Mazda, the wise, to the Supreme God." The Parsis have two sects. The principal difference between them appears to be that the holy days of the one precede those of the other by about a month. The number of Parsis, according to the last Census, is 100,096. The majority of the Parsis live in Bombay.

#### Jews.

The Beni-Israel at Kolaba, in Bombay and the Jews at Cochin are descendants of ancient Colonies. The Kolaba Colony dates back to the sixth Century, and the Cochin colony to the second century A.D. Both Jewish colonies recognize a white and black section, the latter being those who have more completely coalesced with the native population. The Jews numbered at the Census of 1911.

#### Animists.

Since the Census of 1891, an attempt has been made to enumerate the "Animists" separately from the Hindus. Over ten million persons are classed as Animists, according to the last Census. The difference between Animism and Anthropomorphism has been stated by Professor Westermarck, to be that, while the Animist worships inanimate objects as gods, Anthropomorphism consists in the worship of such objects as representatives and reflection of the Deity. As a subtle distinction of this kind is not within the grasp of the average enumerator, the category of Animists in the Census Schedules is largely conjectural. Mr. Crooke in the *Imperial Gazetteer* observes: "Such a classification is of no practical value, simply because it ignores the fact that the fundamental religion of the majority of the people—Hindu, Buddhist, or even Mussulman—is mainly Animistic. The peasant may nominally worship the greater gods; but where trouble comes in the shape of disease, drought, or famine, it is from the older gods that he seeks relief."

OCCUPATIONS OF THE INDIAN PEOPLES—*ctd.*

Trade in building materials	.. .. .	84,613
Trade in means of transport	.. .. .	239,396
Trade in fuel	.. .. .	524,962
Trade in articles of luxury and those pertaining to letters and the arts and sciences.	.. .. .	522,130
Trade in refuse matter	.. .. .	3,695
Trade of other sorts	.. .. .	2,192,534
<b>C.—PUBLIC ADMINISTRATIONS AND LIBERAL ARTS</b>	.. .. .	<b>10,912,123</b>
<i>VI.—Public Force</i>	.. .. .	<b>2,398,586</b>
Army	.. .. .	665,278
Navy	.. .. .	4,640
Police	.. .. .	1,728,668
<i>VII.—Public Administration</i>	.. .. .	<b>2,648,005</b>
<i>VIII.—Professions and Liberal Arts</i>	.. .. .	<b>5,325,357</b>
Religion	.. .. .	2,769,489
Law	.. .. .	303,408
Medicine	.. .. .	626,900
Instruction	.. .. .	674,393
Letters and arts and sciences	.. .. .	951,167
<i>IX.—Persons living principally on their Income</i>	.. .. .	<b>540,175</b>
<b>D.—MISCELLANEOUS</b>	.. .. .	<b>17,286,678</b>
<i>X.—Domestic Service</i>	.. .. .	<b>4,599,080</b>
<i>XI.—Insufficiently described Occupations</i>	.. .. .	<b>9,236,21</b>
<i>XII.—Unproductive</i>	.. .. .	<b>3,451,381</b>
Inmates of jails, asylums and hospitals	.. .. .	122,610
Beggars, vagrants and prostitutes	.. .. .	3,318,771

DISTRIBUTION OF THE POPULATION.

	India.	British Provinces.	Native States.
1	2	3	4
Area in square miles	1,802,657	1,093,074	709,583
Number of Towns and Villages	722,495	538,809	183,686
(a) Towns	2,153	1,452	701
(b) Villages	720,342	537,357	182,985
Number of Occupied Houses	63,710,179	49,140,947	14,569,232
(a) In Towns	6,037,456	4,409,121	1,628,335
(b) In Villages	57,672,723	44,731,826	12,940,897
Total Population	315,156,396	244,267,542	70,888,854
(a) In Towns	29,748,228	22,817,715	6,930,513
(b) In Villages	285,408,168	221,449,827	63,958,341
Males	161,338,935	124,873,691	36,465,244
(a) In Towns	16,108,304	12,525,830	3,582,474
(b) In Villages	145,230,631	112,347,861	32,882,770
Females	153,817,461	119,393,851	34,423,610
(a) In Towns	18,639,924	10,291,885	3,348,039
(b) In Villages	140,177,537	109,101,966	31,075,571

## GROWTH OF THE INDIAN POPULATION.

	1911.	1901.	1891.	1881.	1872.	1911.
INDIA .. .. .	315,156,306	294,361,056	287,314,671	253,896,330	206,162,360	161,338,935
PROVINCES .. .. .	244,267,542	231,605,940	221,240,836	198,882,817	185,163,435	124,873,691
Almer-Merwara .. .. .	501,395	476,912	542,338	460,722	396,331	266,198
Andamans and Nicobars .. .. .	26,459	24,649	15,609	14,628	....	19,570
Assam .. .. .	6,713,635	5,841,878	5,477,302	4,907,792	4,150,769	3,467,621
Baluchistan .. .. .	414,412	382,106	....	....	....	239,181
Bengal .. .. .	45,483,077	42,141,477	39,089,632	36,316,728	34,119,465	23,865,225
Bihar and Orissa .. .. .	34,490,084	33,242,783	32,876,557	30,988,320	26,486,482	16,859,929
Bihar .. .. .	23,752,969	23,360,212	23,581,538	22,418,367	19,735,627	11,606,432
Orissa .. .. .	5,131,753	4,982,142	4,666,227	4,343,864	3,603,156	2,476,284
Chota Nagpur .. .. .	5,605,362	4,900,429	4,628,792	4,225,989	3,147,699	2,777,213
Bombay (Presidency) .. .. .	19,672,642	18,559,650	18,878,471	16,494,538	16,301,362	10,254,847
Bombay .. .. .	16,113,042	15,304,766	15,959,292	14,042,621	14,075,508	8,275,233
Sind .. .. .	3,513,435	3,210,910	2,875,100	2,875,100	2,206,565	1,939,324
Aden .. .. .	46,165	43,974	44,079	34,860	19,289	31,290
Burma .. .. .	12,113,217	10,490,624	7,722,053	3,736,771	2,747,148	6,183,494
Central Provinces and Berar .. .. .	13,916,308	11,971,452	13,048,972	11,943,363	9,951,268	6,930,392
Central Provinces .. .. .	10,859,146	9,217,436	10,151,481	9,270,690	7,723,614	5,379,778
Berar .. .. .	3,057,162	2,754,016	2,897,491	2,672,673	2,227,654	1,550,614
Coorg .. .. .	174,976	180,607	173,055	178,302	168,312	97,279
Madras .. .. .	41,403,464	38,229,654	35,644,428	30,841,154	31,230,622	20,382,955
North-West Frontier Province (Districts and Administered Territories) .. .. .	2,196,933	2,041,534	1,857,519	1,575,943	17,609,672	1,182,102
Punjab .. .. .	19,974,956	20,330,337	19,009,368	17,274,597	17,609,672	10,992,067
United Provinces of Agra and Oudh .. .. .	47,188,044	47,992,277	46,905,512	44,149,659	42,002,004	24,641,831
Agra .. .. .	34,624,040	34,859,109	34,254,588	32,762,127	30,780,961	18,157,131
Oudh .. .. .	12,558,004	12,833,168	12,650,924	11,387,832	11,221,043	6,484,700

GROWTH OF THE INDIAN POPULATION—*contd.*

	1911.	1901.	1891.	1881.	1871.
STATES AND AGENCIES					
Assam State (Manipur) ..	70,885,854	62,755,116	66,073,835	55,013,513	20,998,925
Baluchistan States ..	346,222	284,465	....	221,070	....
Baroda State ..	420,291	428,640	....	....	....
Bengal States ..	2,032,798	1,952,692	2,415,396	2,182,158	1,997,598
Bihar and Orissa States ..	8,365,565	740,299	716,310	698,261	567,827
Bombay States ..	3,945,209	3,314,474	3,023,018	2,410,611	1,723,900
Central India Agency ..	7,411,075	6,308,559	8,081,950	6,937,893	6,797,970
Central Provinces States ..	9,356,980	8,497,805	10,136,403	9,261,907	....
Hyderabad State ..	2,117,002	1,031,140	1,712,562	1,337,294	928,116
Kashmir State ..	13,374,076	11,141,142	11,337,040	9,845,594	....
Madras States ..	3,153,126	2,905,378	2,543,952	....	....
Mysore State ..	4,311,841	4,188,086	3,700,622	3,344,849	3,289,392
N.-W. F. Province (Agencies and Tribal areas) ..	5,806,193	5,539,399	4,943,604	4,186,188	5,055,402
Punjab States ..	1,922,094	83,962	....	....	....
Rajputana Agency ..	4,312,794	4,424,398	4,263,280	3,861,683	2,392,908
Sikkim State ..	10,530,432	9,853,366	12,171,749	9,934,255	....
United Provinces States ..	87,920	59,014	30,458	....	....
	832,036	802,097	792,491	741,750	638,720
					4,31,440

## SUMMARISED GROWTH OF THE INDIAN POPULATION.

	1901 to 1911.	1891 to 1901.	1881 to 1891.	1872 to 1881.	Net variation in period 1872 to 1911. Increase (+), Decrease (-).
INDIA	+20,795,340	+7,046,385	+33,418,341	+47,733,970	+108,994,036
PROVINCES	+12,661,602	+10,365,104	+22,358,019	+13,719,382	+59,104,107
Ajmer-Merwara	+24,483	-65,446	+81,636	+64,391	+105,064
Andamans and Nicobars	+1,810	+9,040	+981	....	....
Assam	+871,757	+364,576	+569,510	+757,023	+2,562,863
Batuchikan	+32,306	....	....	....	....
Bengal	+3,391,600	+3,051,845	+2,772,904	+2,197,263	+11,363,612
Bihar and Orissa	+1,247,301	+366,226	+1,888,237	+4,501,838	+8,003,602
Bihar	+392,757	-221,326	+1,163,171	+2,682,740	+4,017,342
Orissa	+149,611	+315,915	+322,263	+740,808	+1,528,597
Chota Nagpur	+704,933	+271,637	+402,803	+1,078,290	+2,457,663
Bombay (Presidency)	+1,112,992	-318,821	+2,383,933	+193,176	+3,371,280
Bombay	+808,276	-654,526	+1,916,671	-32,887	+2,037,584
Sind	+302,525	+335,810	+458,043	+510,492	+1,306,870
Aden	+2,191	-105	+9,219	+15,571	+26,876
Burma	+1,624,584	+2,768,571	+3,985,282	+989,623	9,363,069
Central Provinces and Berar	+1,944,856	-1,077,520	+1,105,609	+1,992,095	+3,965,040
Central Provinces	+1,611,710	-934,045	+880,791	+1,547,076	+3,135,532
Berar	+303,146	-143,475	+224,818	+445,019	+829,508
Coorg	-5,631	+7,552	-5,247	+9,990	+6,664
Madras	+3,173,750	+2,585,226	+4,803,274	-389,468	+10,174,792
North-West Frontier Province (Districts and Administered Territories).	+155,398	+184,015	+281,576	+1,240,868	+4,562,217
Punjab	-355,331	+1,320,969	+1,734,771	....	....
United Provinces of Agra and Oudh	-510,273	+786,765	+2,755,553	+2,147,955	+5,180,040
Agra	-235,069	+604,521	+1,492,461	+1,981,166	+3,843,079
Oudh	-275,164	+182,244	+1,263,092	+166,789	+1,356,961

## SUMMARISED GROWTH OF THE INDIAN POPULATION—contd.

	1901 to 1911.	1891 to 1901.	1881 to 1891.	1872 to 1881.	Net variation in period 1872 to 1911. Increase (+). Decrease (-).
STATES AND AGENCIES					
Assam State (Manipur)	..	+8,133,738	..	..	+49,890,029
Baluchistan States ..	..	+61,757	..	..	....
Baroda State ..	..	-8,349	..	..	....
Bengal States ..	..	+80,106	..	..	+85,200
Bihar and Orissa States	..	+82,266	+23,989	+18,049	+130,434
Bombay States ..	..	+630,735	+286,456	+617,407	+686,711
Central India Agency	..	+503,116	-1,173,391	+1,144,057	+139,923
Central Provinces States	..	+859,175	-1,638,598	+874,496	....
Hyderabad State	..	+485,862	-81,422	+325,268	+459,178
Kashmir State	..	+2,233,534	-395,893	+1,691,445	....
Madras States	..	+253,548	+301,626	....	....
Mysore State	..	+623,755	+487,464	+355,773	+55,457
N.-W. F. Province (Agencies and Tribal areas)	..	+266,794	+565,795	+757,416	-869,214
Punjab States	..	+1,538,132	....	....	....
Rajputana Agency	..	-211,604	+161,118	+401,597	....
Sikkim State	..	+677,066	-2,318,383	+2,227,494	....
United Provinces States	..	+28,906	+28,556	....	....
	..	+29,939	+9,606	+50,741	+102,030
	..				+193,318

VARIATION IN POPULATION OF THE 30 CHIEF TOWNS.

	1911.	1901.	1891.	1881.	1872.
CALCUTTA AND FORT *	896,087	847,796	682,305	612,307	633,009
BOMBAY .. .. .	979,445	776,006	821,764	773,196	644,405
MADRAS AND CANTONMENT ..	518,660	508,346	452,518	403,848	397,552
Agra and Cantonment ..	185,449	186,022	168,662	149,008	149,008
Ahmedabad and Cantonment ..	216,777	185,889	148,412	127,621	119,672
Allahabad and Cantonment ..	171,697	175,032	175,246	160,118	143,693
Amritsar and Cantonment ..	152,756	163,429	136,766	151,896	135,813
Bangalore Civil and Military Station †	100,834	98,599	93,540	81,510	104,533
Barrilly and Cantonment ..	129,462	133,167	122,837	115,138	101,830
Benares and Cantonment ..	203,804	213,079	223,375	218,373	178,300
Cannore and Cantonment ..	178,557	202,797	194,048	153,369	123,877
Dacca .. .. .	108,551	98,733	81,585	78,369	68,595
Delhi and Cantonment ..	232,837	208,575	192,579	173,393	154,417
Howrah .. .. .	179,006	157,594	116,606	90,813	84,099
Hyderabad and Cantonment ..	500,623	448,466	415,039	367,417	....
Jalpur .. .. .	137,098	160,167	158,787	142,578	....
Jubbulpore and Cantonment ..	100,631	90,533	84,682	76,023	55,469
Karachi and Cantonment ..	151,903	116,663	105,199	73,560	56,753
Tahore and Cantonment ..	228,637	202,964	176,854	157,287	125,413
Lucknow and Cantonment ..	259,798	264,049	273,028	261,303	284,779
Madura .. .. .	134,130	105,984	87,428	73,807	51,987
Mandalay and Cantonment ..	238,299	183,816	188,815	....	....
Meerut and Cantonment ..	116,227	118,129	119,390	99,565	81,386
Nagpur .. .. .	101,415	127,734	117,014	98,299	84,441
Patna .. .. .	136,153	134,785	165,192	170,654	158,900
Poona and Cantonment ..	138,856	153,320	161,390	129,751	118,886
Rangoon and Cantonment ..	233,316	245,130	182,080	134,176	98,745
Shrihar and Cantonment ..	126,344	122,618	118,960	....	....
Surat and Cantonment ..	114,868	119,306	109,229	109,844	107,855
Trichinopoly and Cantonment ..	136,512	104,721	90,609	84,449	76,530

\* The above figures for Calcutta exclude the population of Cossimbazar, Manicktola and Garden Reach. These places have a separate Municipal administration, but for all practical purposes they form an integral part of Calcutta. So also does Howrah except that it lies on the opposite bank of the Hooghly. If the first-named Municipalities be added, the population of Calcutta rises to 1,043,307. If Howrah also be included, it comes to 1,222,313.

† Bangalore City and Bangalore Civil and Military Station are structurally a single unit, but for the purpose of the census they have been treated as separate places.

## Tata Iron and Steel Co., Ltd.

The Tata Iron and Steel undertaking is the greatest of the modern industrial enterprises in India and will rank with the large concerns of the kind in Europe and America. This gigantic project owed its inception to the genius and enterprise of the late Mr. Jannettee Tata, of the firm of Messrs. Tata Sons & Co. Before the formation of the Company the best brains of Europe and America were utilised in examining into the possibility of establishing in India a great iron and steel industry on a paying basis, and no efforts were spared to render the investigation as thorough as possible. No less than Rs. 5,50,000 were spent in the investigation before Messrs. Tata Sons & Co. established to their satisfaction that such works could be erected in India with every reasonable prospect of success. The site eventually fixed upon was at Sakchi, a village in the Singhbhum District of Chota Nagpur, some two miles from the station of Kalinadi, on the Bengal-Nagpur Railway.

Within reasonable distance of Sakchi, which bids fair to become the Pittsburgh of India, very large deposits of high grade iron ore were discovered in proximity to coal of a suitable coking character for the manufacture of pig iron at a very low figure. Two rich fields containing very large supplies of this ore were secured on suitable leases by Messrs. Tata Sons & Co., one situated in the state of Mourbhanj and the other in the Rajpur district, the intention being to limit operations for the present to the Mourbhanj hills, in which 7,000,000 tons of ore had been proved to exist on the lower ridges alone. Numerous analyses have proved this ore to contain on an average over 80 per cent. of metallic iron. The royalties payable under the leases, based on an annual output of 200,000 tons, average 2'60 annas per ton for the first 30 years, and 5 annas per ton for the succeeding 30 years. These ore beds are some 40 miles by rail from the site of the company's works, and the ore is delivered at the rate of about Rs. 2-4-0 per ton.

Messrs. Tata Sons & Co. received from the Company in full settlement for the transfer of all mining rights, concessions, leases, etc., which they had acquired, and in full settlement of all expenses of investigation incurred by them prior to the formation of the Company, 20,000 fully paid-up Ordinary shares of Rs. 75 each, equivalent to a payment of Rs. 15,00,000 and in addition a lump sum payment of Rs. 5,25,000 in cash. In addition to these payments the syndicate of gentlemen who were instrumental in the actual formation of the Company received as remuneration for their services 1,300 fully paid-up Ordinary shares, equivalent to a payment of Rs. 99,750.

### ● Sakchi Works.

The Company's works are designed for an annual output of 120,000 tons of pig iron, and the conversion of 85,000 tons thereof into 72,000 tons of finished steel. The average imports into India of iron and steel of the classes which it is intended to produce amount at the present time to approximately 450,000 tons per annum, so that the company has at its doors a market largely in excess of its present

productive capacity. In addition to the sale of its manufactured products, it is hoped that a further source of revenue may be found in the export of a portion of the company's extensive deposits of high grade ore, which can be placed f. o. b. at Calcutta at the very moderate cost of Rs. 4-2-0 per ton approximately. On all ore sold as ore or exported, Messrs. Tata Sons & Co. are entitled to a royalty of 4 annas a ton. The company further possesses considerable manganese properties at Ramnara in the Central Provinces, which will shortly be connected up by rail with the Bengal-Nagpur Railway, from which it is hoped to secure a considerable revenue.

The following concessions were granted by the Government of India to the Company:—

(1) The purchase by the State of 20,000 tons of steel rails annually for a period of ten years, subject to the condition that the rails comply with the Government specification and that the prices be not more than the prices at which similar rails could be delivered c. l. f. if imported into India.

(2) A reduced rate of 1-25 of a pie per maund per mile, equivalent to '15 of an anna per ton mile, on all materials and plant required for construction, and on all raw material to the works, subject to a minimum mileage charge and to revision at the end of ten years. The reduced rate has also been made applicable to all finished products and bye-products despatched for shipment from Calcutta.

The entire cost of the works, inclusive of the purchase of mining rights, collieries, and all charges incurred in the construction of the town of Sakchi, for the housing of the small army of the Company's employees, was put down at Rs. 2,40,00,000, and it was estimated that on the average prices ruling during the ten years 1896 to 1905 the manufacturing profit, assuming a sale of 35,000 tons of pig iron and 72,000 tons of finished steel, would, after meeting working expenses, deprecations, etc., amount to Rs. 24,15,000. This sum, it was calculated, would, after meeting interest on debentures and commission payable to the Managing Agents, enable the Company to pay the stipulated dividends of 6 per cent. on the preference capital, 8 per cent. on the ordinary capital, and 25 per cent. on the deferred capital, and leave a surplus of approximately Rs. 7,15,000 for distribution in equal shares between the ordinary and the deferred capital.

### Early Operations.

The Company started operations in August, 1907, and the construction and equipment of the work were regarded as practically completed by the end of January, 1913, at a total capital outlay on that date of Rs. 21,00,000.

The blast furnaces worked well from the start and turned out pig iron of excellent quality. The steel furnaces gave a considerable amount of initial trouble, but these difficulties appear to have been completely overcome, and the directors anticipate that there will be no difficulty in producing an output of 7,000 tons a month of steel, which will bear comparison with good British steel. Numerous



orders for the Company's manufactured products were reported coming in from all parts of the East, the largest customer being Japan. So much so in fact that at the annual meeting of the shareholders held on the 14th November, 1912, the Chairman of the Company, Mr. R. J. Tata, expressed the opinion that it would be necessary at an early date to consider the necessity of increasing the productive capacity of the Company's works.

The Company was registered on 26th August 1907. The Directors are Sir, D. J. Tata, Mr. R. J. Tata, His Highness The Thakore Saheb of Morvi, G.C.I.E., Sir Sassoon David, Kt., Sir Cowasjee Jehangir, Bart., Sir Vithaldas Damodhar Thackersey, Kt., Mr. Gordhandas Khatatta, The Hon'ble Sir Fazulbhoy Currimbhoy Ebrahim, Mr. Narottam Morarjee Goculdas, Mr. M. A. Tana, Mr. C. V. Metha, Sir Shapurji B. Broacha, Kt., (Debutent Director), Mr. A. J. Billmoria (Special Director). Managing Agents—Messrs. Tata Sons & Co.

The following figures explain the financial arrangements of the Company at the outset:—

Capital authorised—Rs. 2,31,75,000. Ordinary Capital—Rs. 1,50,00,000. Preference capital—Rs. 75,00,000. Deferred capital—Rs. 6,75,000. Capital subscribed on the 31st March 1913—Rs. 2,00,88,225. Ordinary capital—Rs. 1,49,04,525. Preference capital—Rs. 44,80,050. Deferred capital—Rs. 6,37,650. In addition, Debutent capital to the extent of Rs. 60,00,000 was issued. The balance of the Preference and Deferred shares were placed during last year.

#### Present Position.

The seventh report of the Tata Iron and Steel Company, issued in November, 1913, showed a profit of Rs. 8,58,583 during the past year. No dividend was proposed for the ordinary or deferred shares; but a dividend on the preference shares for a period of 18 months from the 1st January, 1912, to June 1913. The shareholders were assured "that the quality of steel has improved and several thousand tons of rails have been passed by the Government Inspector and shipped to both Government railways and others."

The Directors, in their report, stated: "Some additions had to be made to the plant to secure efficiency. The purchase and development of new collieries, the contemplated increase of the coke ovens capacity and the intended installation of additional coke ovens of the bye-product type, the necessary extensions to residential quarters required to accommodate staff, and the actual increase of working capital to about double the amount that was provided for—all these have necessitated the finding of further money. Your directors, therefore, have recently arranged to place at par the unallotted preference shares amount-

ing to about Rs. 30 lakhs, and also the 1,233 unallotted deferred shares at a good premium.

The General Manager stated in his report that: "The steel works have experienced a great many difficulties, the greatest of which has been shortage of bricks for repair and re-lining. The steel works have not yet fulfilled their expectations but are now in much better condition to do so than heretofore. The staff is being strengthened and bricks are coming more regularly. The quality of the steel has improved and several thousand tons of rails have been passed by the Government Inspector and have been shipped to both Government Railways and others. Three grades of steel are being marketed—British standard, which carries with it a certificate from the Government Metallurgical Inspector; "Bazar" for material which just falls outside British standard specifications; and 2nd class or steel slightly defective on the surface. The average phosphorus and sulphur in the steel for the entire year is '037 and '027 respectively.

"Production of the rolling mills for the year is low because of the delinquencies of the steel works. Sufficient orders have been received to more than take care of its production. The mill has been favoured with a standing yearly order for 20,000 tons of rails for the Indian State Railways. Orders have also been received and executed for the B. B. & C. I. Ry., Baroda State Railway and Assam Bengal Railway. Enquiries have also been received from other railroads, notably the B. N. R. and G. I. P., but orders have not yet been placed. Beams, channel and angles have been well received in all markets and the Company's sections are considered equal and superior to British makes.

"The Bar Mill was placed in operation with a single shift only on October 31st, 1912. On May 26th, 1913, a second shift was started. The mill is operated almost entirely by Indian labour and is slower to come up to its capacity than it otherwise would be. Its various products and the necessary roll changing operate against the best results in quantity of production. This mill supplies all fishplates for rails rolled on the larger mill.

"The average pay-roll is about 9,000 men and women. The number of European covenanted hands is about 125, the balance of the labour is either Indians or locally hired Europeans.

"Sales have been made to all points in India as well as Japan, China, Java, Ceylon, Burma, Straits Settlements, Australia, River, Plate and the west coast of the United States. The market has experienced a large rise and fall during the year. It is hoped and expected that the activities about to begin at Delhi and vicinity will produce large quantities of beams, channels and angles."

## Bombay Hydro-Electric Scheme.

The Tata Hydro-Electric Power Supply Company, Limited, was founded in November, 1910, with the friendly encouragement of the Bombay Government, to exploit the possibilities of the Western Ghats, 50 miles distant from Bombay, with their heavy and unfailing monsoon rainfall, in order to provide a great supply of electric energy to the City of Bombay, where the great and increasing industrial developments offer a large field for its use. The company was formed primarily to acquire and work the concession and license for the supply of electricity in Bombay conferred upon Messrs. Dorabji Jamsetji Tata and Ruttonji Jamsetji Tata by the Government of Bombay in March, 1907. The license applies to the town and Island generally, but excludes every cantonment, fortress, arsenal, factory, dockyard, camp, building or other place in the occupation of Government for naval or military purposes. The license, including all rights and concession incidental to it, was transferred to the company for the sum of Rs. 12,50,000 in 1250 fully paid up ordinary shares of the company.

Capital authorised—Rs. 2,00,00,000. (Ordinary capital—Rs. 1,00,00,000. Preference capital—Rs. 1,00,00,000.) Capital issued—Rs. 1,40,00,000. (Ordinary capital—Rs. 70,00,000. Preference capital—Rs. 70,00,000.) In addition, debenture capital to the extent of Rs. 60,00,000 has been issued, bringing up the total capital issued, inclusive of debentures, to Rs. 2,00,00,000.

The qualification of every Director of the Company, the Special Directors and the debenture Director is the holding of shares in the company to the nominal value of Rs. 30,000. Messrs. Tata, Sons & Co., the Managing Agents of the company, are appointed as such for a term of 18 years, from the date of the registration of the company, and it is provided that during such time as they are Managing Agents, one member of their firm shall be *ex-officio* a Director of the company and shall also be *ex-officio* the Chairman of the Directors. Further, so long as Messrs. Tata hold shares in the capital of the company to the nominal value of Rs. 10,00,000, they have the right to appoint a second Special Director, whether a member of their firm or not. Further, every shareholder of the company holding in his own right shares to the nominal value of Rs. 10,00,000 has the right to appoint a Special Director, to remove such Director and to appoint another in his place. Similarly, the debenture holders have the right to appoint a Director, or remove such Director, or to appoint another in his place. A Director who is out of India may, with the approval of the Directors, appoint any qualified person to be an alternate Director during his absence out of India.

The following are the present Directors:—Mr. Ratan Tata (chairman), Sir D. J. Tata, Kt., The Hon. Sir Sassoon David, Bart., Sir S. B. Broacha, Kt., The Hon. Mr. Jalubhai Samaldas, The Hon. Mr. P. D. Pattani, C.I.E., Shri Ram Sampat Rao Gaekwar, Mr. H. J. Bhabha, Mr. W. H. White, C.S.I., The Hon. Sir Vithaldas Damodar Thackersey, Kt., Mr. Narottam Morarji Goculdas, Mr. A. J. Billimoria.

The company's works are approaching completion and it is expected that power will be available by about March, 1914, as is shown in the detailed report published below. The hydro-electric engineering works in connection with the project are situated at Lonavla, above the Bhor Ghat, and near Karjat, below Khandala, where the turbine house and generating station have been built. The water storage works involved the building of two great dams—the Waihwan and Shirawata respectively—with extensive tunnelling and aqueducts, and a pipe line down the precipitous side of the Ghats. Applications for the supply of power to cotton mills aggregating 37,000 horse power have been accepted, and this practically means that the whole of the power available from the installation now in hand is disposed of. The company have received applications for some 3000 h.p. outside the limits of the Island of Bombay and have accordingly decided to extend their operations so as to meet this demand, and have applied for a license for the purpose. In order to provide funds for the additional expenditure involved, the capital of the company was in 1912 increased by Rs. 25,00,000 to its present figure by the issue of 1,000 additional Ordinary shares of Rs. 1,000 each, 1,000 additional Preference shares of Rs. 1,000 each and 500 additional debentures of Rs. 1,000 each. The Ordinary shares were issued at a premium of Rs. 100 each and the preference at a premium of Rs. 50 each, the total premium received, amounting to Rs. 1,50,000, being placed to reserve. Interest at the rate of 4 per cent. per annum is being paid, with the consent of Government, by way of dividend to shareholders of both Ordinary and Preference shares during the construction of the company's works, as a charge against capital. (This payment may not extend beyond the close of the half-year next after the half-year during which the works of the company are actually completed.)

The following is the state of progress as shown in a report issued by the Company in December, 1913:—The Lonavla Dam has been raised to level 2,051, while the west waste weir is at level 2,050, and the lake is now full of water at this level. The Waihwan Lake is full of water up to level 2,048. Both dams are holding water well.

The Shirawata Tunnel.—The total length of the Shirawata Tunnel will be 5,127 feet, of which 3,190 feet had been completed by the middle of September, 1913. Work from the Waihwan side has been carried on for several months with compressed air drills, and similar equipment will shortly be placed at the Shirawata end. Our resident engineer is of opinion that this tunnel will be completed by April 15th, 1915.

Ducts.—In connection with this work, there is still some delay over finding suitable arch stones for various viaducts, but generally speaking the position seems to be such that water can be got through from Lonavla by January, so that the starting of the works should not be delayed on this account.

**Forebay.**—This work is not so far ahead as it should have been, but with sharp work, arrangements can be made to supply our needs for power service and the main work completed afterwards.

**Pipe Line.**—This work is the most backward of all. It is being pushed vigorously in excavation in the section down the faces of the cliffs between the reversing station and the Khopoli Power House, and we are making every effort to arrange with our engineers and contractors in such a manner as to ensure completion of this work in time to enable us to make a start in February next.

**Power House.**—The work here is sufficiently well in hand to leave no doubt as to our ability to generate power in February, if the water can be brought to the turbines by that time.

**Transmission Line.**—All of the land towers have been erected and are ready to receive the cables. In fact, ten miles of line from Bombay would now be completed if the contractors had supplied the strain insulators. We are now nearly finished with the erection of the special Creek Crossing Towers, some of which are nearly 200 feet high standing on 50 ft. founda-

tions, and it is hoped to complete the transmission lines in time.

**Receiving Station.**—The work here stands just about the same as described at the power station and is in such a position that we shall readily be prepared to receive and distribute electrical power as soon as the water can be brought to the turbines.

**Distribution.**—Cables underground between the receiving station and the mills have been laid as far as possible. There were certain points, where overbridges are being erected across the railways, and the Improvement Trust and Municipality are making alterations and improvements in certain streets rendering it impossible for us to lay our cables. Some of these difficulties now, however, have been obviated, and we do not anticipate any trouble in making this work keep pace with the equipment of the mills.

**Mill Equipments.**—At nearly half the number of the mills including those which come early in the list of priority, the transformer houses are ready to receive our transformers when the same arrive from England, and structural work which will form the motor loadings is now being put in hand by Mr. Preece, the company's mill expert, and his assistants.

## Societies : Literary, Scientific and Social.

**AGRICULTURAL AND HORTICULTURAL SOCIETY OF INDIA (Calcutta).—**Founded 1820. Annual subscription Rs. 32. Entrance fee Rs. 8. *Secretary*, F. H. Abbott, 17, Alipore Road, Alipore.

**AGRI-HORTICULTURAL SOCIETY OF BURMA.—***Secretary*, Capt. W. H. Allen, Victoria Park, Kandawglay.

**AGRI-HORTICULTURAL SOCIETY OF MADRAS.—**Established 1833. Quarterly subscription for members in Class A Rs. 7, in Class B Rs. 3. *Secretary*, P. F. Fyson, Mount Road, Teynampett, S. W., Madras.

**ANTHROPOLOGICAL SOCIETY OF BOMBAY.—**Founded 1886, to promote the prosecution of Anthropological research in India; to correspond with Anthropological Societies throughout the world; to hold monthly meetings for reading and discussing papers; and to publish a periodical journal containing the transactions of the Society. Annual subscription Rs. 10. *Secretary*, Shams-ul-Ulma Jivanji Jamshedji Modi, Town Hall, Bombay.

**ASIATIC SOCIETY OF BENGAL (Calcutta).—***Secretary*, G. H. Tipper, M.A., 57, Park Street, Calcutta.

**BOMBAY ART SOCIETY.—**Founded 1888, to promote and encourage Art by exhibitions of Pictures and Applied Arts, and to assist in the establishment and maintenance of a permanent gallery for Pictures and other works of Art. Annual exhibition every February. Annual subscription Rs. 10; Life Member Rs. 100. *Secretary*, Prof. O. V. Muller, M.A., Elphinstone College, Bombay.

**BOMBAY BRANCH OF THE CLASSICAL ASSOCIATION.—**Founded 1908, to promote the development and maintain the well-being of classical studies. Annual subscription Rs. 6. *Secretary*, The Rev. A. Allinger, S. J., St. Xavier's College, Bombay.

**BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY.—**Founded 1804, to investigate and encourage Oriental Arts, Sciences and Literature. Annual subscription Rs. 50. *Secretary*, M. M. S. Gubbay, I.C.S., Town Hall, Bombay.

**BOMBAY NATURAL HISTORY SOCIETY.—**Founded 1883, to promote the study of Natural History in all its branches. Annual subscription Rs. 15. *Secretary*, W. S. Millard, 6, Apollo Street, Bombay.

**BRITISH AND FOREIGN BIBLE SOCIETY.—**Since 1811 the British and Foreign Bible Society has been at work in this country. It has 6 Auxiliaries in India and an Agency in Burma. The first Auxiliary was established in Calcutta, in 1811, then followed the Bombay Auxiliary in 1813, the Madras Auxiliary in 1820, the North India Auxiliary in 1845, the Punjab Auxiliary in 1863, the Bangalore Auxiliary in 1875, while the Burma Agency was founded in 1899. The Bible or some portions of it, is now to be had in 71 different Indian languages and dialects and for the first time in 100 years of work, the circulation throughout India and Burma reached over 1,000,000 copies in 1912. The Bibles, Testaments, and Portions in the various Vernaculars are sold at rates which the very poorest can pay, and at considerable loss to the Society. Grants of English Scriptures are made to Students, who pass the various University examinations, whose applications are countersigned by their Principals, as under:—

The 4 Gospels and the Book of Acts in 1 Vol. to Matriculates.

The New Testament and Psalms to Intermediates.

The Bible to Graduates.

Last year no fewer than 8,380 volumes were so distributed. Portions of Scriptures in the important vernaculars have been prepared in raised type for the use of the Blind and large grants of money are annually given to the different Missions, to enable them to carry on Bible-women's and Colportage work.

Besides the British and Foreign Bible Society, there is Bible work carried on, in India, Assam and Burma in a much smaller way, by the Bible Translation Society, which is connected with the Baptist Missionary Society, the American and Canadian Baptist Mission, the National Bible Society of Scotland, and the Tranquebar Tamil Bible Society.

The following tables show the growth in the British & Foreign Bible Society's work during the past few years in India & Burma:—

CIRCULATION OF THE B.F.B.S. IN INDIA.

Auxiliaries.	1912.	1911.	1910.	1909.
Calcutta	191,809	127,904	123,899	125,251
Bombay	161,128	140,852	138,907	128,778
Madras	288,688	266,911	250,273	199,395
Bangalore	33,630	32,958	22,309	20,765
North India	212,011	186,911	148,681	122,012
Punjab	84,014	74,831	71,842	58,804
Total copies of Scriptures	951,280	830,427	755,911	655,005

These returns do not include the copies which any Auxiliary has supplied to London or to other Auxiliaries and agencies during the year.

TABLE OF CIRCULATION IN BURMA.

Channels.	Bibles,*	Tests.	Portions.	Totals, 1912.	Totals, 1911.	Totals, 1910.
Sales by colportage .. ..	765	1,164	91,921	93,850	76,516	70,209
Sales at Rangoon depot .. ..	860	1,372	8,441	10,673	11,494	10,359
Sales at branch-depots .. ..	61	192	1,641	1,894	2,327	3,676
Sales by Biblewomen .. ..	1	13	2,087	2,101	982	1,766
Total sales .. ..	1,687	2,741	104,090	108,518	91,319	86,010
Free grants .. ..	15	13	100	128	97	108
Totals .. ..	1,702	2,754	104,190	108,646	91,416	86,118

**BRITISH MEDICAL ASSOCIATION.** (Bombay Branch).—Founded 1886, to promote Medical and the Allied Sciences and the maintenance of the honour and interests of the Medical Profession. *Secretary*, Dr. D. R. Bardi, Bombay.

**BOMBAY MEDICAL UNION.**—Founded 1883 to promote friendly intercourse and exchange of views and experiences between its members and to maintain the interest and status of the medical profession in Bombay. The entrance fee for Resident members Rs. 5, quarterly subscription Rs. 2. *Secretaries*, Dr. B. S. Shroff and Dr. F. A. Kapadia, Readymoney Buildings, Apollo Bunder, Bombay.

**BOMBAY SANITARY ASSOCIATION.**—Founded to create an educated public opinion with regard to sanitary matters in general; (b) to diffuse the knowledge of sanitation and hygiene generally, and of the prevention of the spread of disease amongst all classes of people by means of lectures, leaflets and practical demonstrations and, if possible, by holding classes and examinations; (c), to promote sanitary science by giving prizes, rewards or medals to those who may by diligent application add to our knowledge in sanitary science by original research or otherwise; (d) to arrange for homely talk or simple practical lectures for mothers and girls in the various localities and different chawls, provided the people in such localities or chawls give facilities. *Secretary*, Dr. J. A. Turner, M.D., Municipal Health Officer, Bombay.

**EUROPEAN DEFENCE ASSOCIATION.**—The European Defence Association was established in 1883 under the title of the European and Anglo-Indian Defence Association and was re-established in 1912 under its present title. The Association has for its objects the general protection of European interests and the promotion of European welfare. The Association numbers—The Head Offices are at Grosvenor House, Calcutta. *President*, Mr. Dudley B. Myers. *Secretary*, Mr. Alec Marsh.

## BRANCHES

**BOMBAY.**—*Chairman*, The Hon'ble Sir Charles Armstrong; *Secretary*, Mr. T. A. Savage.

**MADRAS.**—*Chairman*, The Hon'ble Mr. A. D. Jackson; *Secretary*, Mr. H. H. Chettle.  
**KARACHI.**—*Chairman*, Mr. W. U. Nicholas; *Secretary*, Mr. W. D. Young.

**LAHORE.**—*Chairman*, Mr. E. W. Parker; *Secretary, pro tem* Mr. E. W. Parker.  
**CAWNPORE.**—*Chairman*, The Hon'ble Mr. H. Ledger; *Secretary*, Mr. J. G. Ryan.

**MOZUFFERPORE.**—*Chairman*, Colonel V. N. Hickley, C.I.E., V.D., A.D.C.; *Secretary*, The Hon'ble Mr. T. R. Filgate, C.I.E.

**DARJEELING.**—*Chairman*, Mr. H. R. Irwin; *Secretary*, Mr. G. Wrangham-Hardy.

**INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE.** (Calcutta).—*Secretary*, Dr. Amrita Lal Sircar, 210, Bow Bazar Street, Calcutta.

**INDIAN SOCIETY OF ORIENTAL ART** (Calcutta).—*Joint Secs. and Treasrs.*, N. Blount and B. C. Law, P. O. Box No. 8, Calcutta.

**INDIA SUNDAY SCHOOL UNION.**—The India Sunday School Union is a large indigenous interdenominational Society having the sympathy and Co-operation of the greater number of Missionary Societies in India. The great purposes of the Union are the promotion of systematic and careful Bible study, and the increased efficiency of Sunday School in India. Its operations extend beyond the borders of India itself to Arabia, Siam, Borneo and Assam. Upwards of 650,000 Sunday School scholars and teachers and 13,944 Sunday Schools are connected with the Union, speaking 60 Vernaculars. One Central and 40 Provincial Committees control its Indian work, which forms part of a world wide movement with a membership of 28,000,000.

The India Union was founded in Allahabad in 1876. Yearly examinations are held for both teachers and scholars in 31 centres, for which medals, prizes and certificates are granted to successful candidates upwards of 14,320 entered these Exams. for 1912. Notes on the daily portions of the Interdenominational Bible Reading Association are published by the I. S. S. U. in English and 14 Vernaculars, and 50 editions of the S. S. Lesson Expositions are published in 20 Vernaculars. In addition, there is a large

publication of literature dealing with all phases of child study and moral and religious training. The monthly publication of the Union is the *India Sunday School Journal*.

Two whole-time and six-part-time missionaries are devoted to the work of Union. The Teachers Training Department is under the care of Mr. E. A. Annett, *General Secretary of the Union*, the Rev. R. Burgess, *India Sunday School Union Office*, Jubbulpore.

**MADRAS FINE ARTS SOCIETY.**—*Secretary*, Edgar Thurston, Central Museum, Madras.

**MADRAS LITERARY SOCIETY AND AUXILIARY OF THE ROYAL ASIATIC SOCIETY.**—*Secretary*, W. F. Grahame, I.C.S., College Road, Nungambaukum.

**PHILATELIC SOCIETY OF INDIA.**—Annual subscription Rs. 20. *Secretary*, J. Godinho, Girgaum, Bombay.

**PHOTOGRAPHIC SOCIETY OF INDIA (Calcutta).**—Annual subscription Rs. 24 (Town Members) and Rs. 10 (Mofussil members). Entrance fee Rs. 20 and Rs. 10. *Secretary*, C. M. Stuart, 40, Chowringhee Road, Calcutta.

**RANGOON LITERARY SOCIETY.**—*Secretary*, M. Hunter, 13, York Road.

**RANGOON MUSICAL AND DRAMATIC SOCIETY.**—Founded 1909. *Secretary*, Miss L. West, Dalhousie Street, Rangoon.

**SERVANTS OF INDIA SOCIETY.**—The Servants of India Society which was founded by the Hon'ble Mr. Gopal Krishna Gokhale, B.A., C.I.E. in 1905 has its Headquarters in Poona and its objects are "to train national missionaries for the service of India and to promote, by all constitutional means the true interests of the Indian people." Its government is vested in the first member who is Mr. Gokhale and a Council. It has at present four branches, viz., (1) in Bombay, (2) in Madras, (3) in the United Provinces, (4) in Central Provinces. Each Branch consists of ordinary members, members under-training and permanent assistants who work under the direction of a Senior Member. The branches engage both in propagandist and active work of political, educational, social, agricultural and philanthropic character.

better idea of the work of a branch can be had from a brief description of the operations of the Bombay Branch whose members have so far undertaken activities in various fields.

(1) Social purity like the Holika Sammelan of Bombay, (2) Social reform organization under the auspices of the National Social Conference, (3) rousing public opinion about elementary education, (4) promotion of the cause of elevation and education of Indian women by building up institutions like the Seva Sadan, Poona Branch, (5) Social Service as carried out by the Social Service League of Bombay, (6) spread of co-operative movement among the agriculturists, potters, and mill-hands, (7) relief work connected with wide-spread calamities by organizing the Plague Relief Committee of

Poona which succeeded in making inoculation popular in the Deccan, the Salumbra Fire Relief Committee which arranged for the relief to sufferers for five years and by undertaking a scheme of non-official relief during the famine of 1907-08 in the United Provinces, the famine in Gujarat and Kathiawar of 1911-12 and the famine of 1913 in the district of Ahmednagar.

The expenses incurred by the Central Home of the Society in Poona and its four branches exceed Rs. 20,000 a year and this amount is made up by contributions from Indians, rich as well as poor. The present number of workers enlisted by the Society is about 25 most of whom are University men of considerable standing.

**SEVA SADAN.**—The Seva Sadan Society was started on the 11th of July, 1908, by the late Mr. B. M. Malabari. It was the pioneer Indian ladies' society for training Indian sisters ministrant and serving (through them) the poor, the sick and the distressed. The society has a habitation in Gamdevi, Bombay. One-half of the Building and Endowment Fund of Rs. 82,000 has been spent mainly in building at Gamdevi and partly in the purchase of two acres of land at Santa Cruz for a "Sisters' Home" and other purposes.

The Society maintains the following institutions for training its probationers and for doing its other work. 1. A home for the Homeless. 2. An Industrial Home with various departments. 3. A Shelter for the distressed. 4. A Dispensary for Women and Children. 5. Ashrama (or Sisterhoods). 6. Free educational classes and a Library and Reading-room. 7. A Work-class, and Home-Classes in the quarters of the poor. All these are for the benefit of women. The Society has two branches, one at Poona and another at Ahmedabad. The expenditure annually incurred is about Rs. 20,000. *Secretary*, Miss B. A. Engineer, M.A., LL.B., President, Mrs. Ramabai Ranade; President, Ahmedabad Branch, Lady Chinubhai Madhavji; President, Poona Branch, Mrs. Ranade. *General Treasurers*, Sister Sushilabai and the Hon'ble Mr. Lalubhai Samaldas. *Trustees*, Sir Narayan Chandavarka, Sir Bhalechandra Krishna, Sir V. D. Thackersey, Mr. Damodardas G. Sukhadwala.

**CONSUMPTIVES' HOME SOCIETY.**—This Society was started by the late Mr. B. M. Malabari on the 1st of June 1909. It was registered under Act XXI of 1860. It is an off-shoot of the Seva Sadan. Mr. Malabari secured a large grant of land in a Himalayan pine forest in Dharmpur (Simla Hills) from H. H. the Maharaja of Patiala for a Sanatorium for Consumptives. The Sanatorium was started on June 1, 1909, and has been in existence ever since. Mr. Malabari collected an Endowment Fund of about Rs. 67,000 lodged with the Treasurer, Charitable Endowments, under Act VI of 1890. Nearly Rs. 70,000 more have been spent on buildings, etc., and the current annual expenditure is about Rs. 14,000. Dr. Naavat, L.M. & S., and B.Sc., is in charge of the Sanatorium.

**THE YOUNG WOMEN'S CHRISTIAN ASSOCIATION IN INDIA, BURMA AND CEYLON.**—This was started in India in an organized and National way in 1896. The aim of the Association is to meet the needs of the girls and women who live in India from an Intellectual, Spiritual, Social and Physical standpoint. This is done in many ways in the 160 Associations that now flourish under the auspices of the National Young Women's Christian Association. The Associations in the big cities have a large membership and include all classes of the community. Clubs, Classes, Lectures, Study Courses, Music, Languages, Bible and Mission Study, social intercourse and all kinds of physical recreation are carried on as need arises in these City Associations. Boarding Homes are established in all the principal cities where teachers, nurses, business girls, students, apprentices, etc., can have a comfortable home with good, wholesome food and congenial companionship for Rs. 20 or Rs. 30 per month. Travellers' Aid work is done and many travellers, especially in the port cities, find accommodation as they pass through. A useful feature of the Association is the Holiday Homes that are conducted in the hills, where girls from the plains can find inexpensive accommodation and regain health and strength. Some of the homes accommodate as many as thirty-six at one time and hundreds benefit during the season. The work of the Association in the large cities is managed by a staff of professional Y. W. C. A. Secretaries, who are fully trained and equipped to meet the many demands that are made on them. These Secretaries are supplied from America, Britain, Australia and India.

Many of the Associations are in small up country stations where a handful of members constitute the Branch, led by some lady in the station who is glad of this opportunity for service. The members of these small stations may be transferred, in the ever-changing life of India, into the large cities and then they learn in a fuller way what the Association can do to help them in all round development. The National Headquarters are in Bombay where the greater part of the National Committee is stationed. The interdenominational character of the Association is clearly kept in the forefront and ladies of many Christian denominations are on the Committee. The National Committee consists of twenty-five members, resident and non-resident, representative of Student and City Department in various sections of the country.

The Officers are:—President, Mrs. Mackichan; Vice-Presidents, Mrs. G. B. Coleman, Mrs. E. J. Palmer, Miss A. R. M. Dobson, Honorary Treasurer, F. J. Clark, National General Secretary, Miss Ethel Hunter, National Office Secretary, Miss Marie B. Snow.

The General Secretaries of the principal places are—Bombay, Miss Wheelodon; Calcutta, Miss Rutherford; Colombo, Miss Lang; Rangoon, Miss Ledwich; Madras, Miss Gither; Bangalore, Miss Meager; Karachi, Miss O'Brian; Lahore, Miss Shields; Mussoorie, Miss Gregory; Simla, Miss Hadow; Allahabad, Miss Mather; Lucknow, Miss Davis.

The National Office is in the British Foreign & Bible Society Building, 173, Hornby Road, Bombay.

The Official Organ of the Association is "The Young Women of India," which has a circulation of over 2,000 copies monthly.

**THE YOUNG MEN'S CHRISTIAN ASSOCIATION.**—This Association, which was founded by the late Sir George Williams on June 6, 1844, seeks to unite those young men who, regarding Jesus Christ as their God and Saviour according to the Holy Scriptures, desire to be His disciple, in their doctrine and in their life, and to associate their efforts for the extension of His kingdom among young men. The above is known as the "Paris Basis" of the Young Men's Christian Associations and it is world-wide. It was adopted at the first World's Convention in Paris in 1855 and re-affirmed at the Jubilee World's Convention in Paris in 1905. The aim of the Association is through its religious, educational, and physical work to cater for the threefold—spiritual, mental and physical—needs of young men, and its policy is one of intense loyalty to the Church.

There are, as a rule two classes of members. Any young man who is a member in full communion of any Protestant Christian Church may be an active or voting member and any young man of good character may be an associate.

Flourishing Associations have been formed in Bombay and Rangoon under the auspices of the English National Council, of which Lord Kinnaird is President, and in Calcutta and in nearly every other important Centre in India under the auspices of the International Committee of Y. M. C. A. of North America. The International Committee appoints secretaries to the National Council, Y. M. C. A., India and Ceylon, which is composed of members appointed triennially from the local associations.

The headquarters of the National Council are in Calcutta at 86, College Street. The following is a list of its present members and secretaries:—

*Patron*, His Excellency the Viceroy, Lord Hardinge of Penshurst.

*Advisory Members*, Sir Robert Laidlaw, Kt., London; G. K. McNair, Esq., Calcutta; and E. H. Wood, Esq., Toronto.

Raja Sir Harnam Singh, K.C.I.E., *Chairman*.

W. R. Gourlay, Esq., I.C.S., *Treasurer*.

Rev. C. F. Andrews, M.A.

C. G. Arthur, Esq.

A. H. S. Aslam, Esq., M.A.

Rev. V. S. Azariah.

J. R. Banerjee, Esq., M.A., B.L.

Sir Henry P. Butt, K.C.I.E.

Brig.-Genl. F. G. Bond, C.B.

Rev. J. R. Chittamber, M.A.

Rev. Alden H. Clark, M.A.

Rev. W. M. Zumbro, M.A.

F. J. Clark, Esq.

W. A. Cole, Esq.

Dr. S. K. Datta, B.A.

J. C. Dutt, Esq., M.A., B.L.

A. G. Fraser, Esq., M.A.

The Hon'ble Mr. F. C. Gatte, O.S.I.

E. S. Hensman, Esq.

J. C. Jansz, Esq.

H. H. Mann, Esq., D.S.C.  
 R. G. Monteach, Esq.  
 Dr. T. Narayan Swami.  
 Col. G. W. Palin, C.I.E.  
 Sir Henry E. G. Procter, Kt.  
 J. H. Simpson, Esq., C.I.E., C.I.C.S.  
 F. H. Stewart, Esq., M.A., C.I.E.

## SECRETARIES.

E. C. Carter,  
 A. C. Harte,  
 K. T. Paul, } *General Secretaries.*

J. N. Farquhar, *Literary.*  
 F. C. Freeman, *Railway.*  
 F. V. Slack, *Student.*  
 A. D. Solomon, *Office.*  
 J. Chellan, *Army.*  
 F. A. Wilson-Lawrenson, *Business.*  
 K. J. Saunders, *Principal, Training School.*  
 T. C. Sircar, *Bengal.*  
 H. W. White, *Inter-city, Tanjore—Palamcottah.*  
 M. G. Brooks, *Ceylon.*  
 O. H. McCowen, *Burma.*  
 John Devadas, *Tinnevely District.*  
 J. R. Isaac, *Special.*

H. Kuhner, *Malabar.*  
 J. Jacobi, *Malabar.*  
 H. Schaetti, *Architect.*

Of the local associations Bombay is said to possess the finest Association Building in the East and, owing to the generosity of the public, of Government, and of friends in the United States and Great Britain, it will shortly be the best equipped Association as well. Its President is Sir Henry Procter, Mr. L. G. Cranna, the General Secretary, resides at the Central Branch in Wodehouse Road, Mr. Frank Anderson, M.A., J.P. (on furlough) and Mr. T. R. Ponsford are the secretaries of the Student Branch at Girgaum, Mr. D. Munro who has been trained in America is the Physical Director, Mr. G. S. Carrara, the Secretary of the Byculla or Indian Christian Branch, and Mr. W. Blackford, the Superintendent of the Mazgaon Branch, with its Apprentices' Institute. Apart from its religious activity, the Bombay Y. M. C. A. provides at moderate rates board and residence for about 50 young men. Two public tournaments, *viz.*, the Elton Hockey Tournament, and the Condor Tennis Tournament are held annually under its auspices.

## SOCIAL INSTITUTIONS.

Though India is a land of many religions and though each religious community has, as a rule, lived apart from other communities for centuries, still the tendency of all has been to adopt and assimilate as far as possible the social ideas and institutions of the Hindus. Thus the idea underlying the institution of Caste, which is a distinctively Hindu one, has influenced the social life, to a greater or less degree, of Indian Jews, Christians, Parsis and Mahomedans. The joint family system, infant and too early marriages, and enforced widowhood, are other Hindu customs which have been either wholly or partially adopted by other communities. Thus, the social life of the many religious communities of India, presents many common features. In the following paragraphs, therefore, the principal social institutions and customs of the Hindus, who form by far the largest section of the people of India, will be briefly described, and the extent to which each custom or institution prevails among the other communities will be indicated. It may be mentioned here that, in recent years, as the result of a growing communal consciousness, efforts have been made by many of the Indian communities to discard whatever is in discord with the original simplicity of their respective faiths. But this movement has as yet touched no more than the highly educated fringe, and even among the latter, there are thoughtful men who distrust "revivals" as substitutes for reform.

## Caste.

The most conspicuous social institution of India is Caste. Caste is based on birth. The effect of caste is to divide society into a number of vertical sections, and not as in modern countries, into horizontal sections. The economic and cultural differences among the members of each caste, are great. The millionaire and

the pauper, the scholar and the illiterate of one caste, form a social unit. The rich man of one caste must seek a husband for his daughter among the poor of his caste, if he cannot find one of a corresponding position in life. He can on no account think of marrying her to a young man of another caste, though as regards culture and social position, he may be a most desirable match. Thus, each caste is, within itself, a democracy in which the poor and the lowly have always the upper hand over the rich and the high-placed. In this way, the system of caste has, in the past, served as a substitute for State relief of the poor by means of special laws and institutions. To some extent, this is the case even now, but the economic pressure of these days, and the influence of Western education, are profoundly modifying the conception of caste. The growth of the English-educated class on the one hand, and of the modern industrial and commercial class of Indians, on the other with common aspirations and interests, is a factor calculated to undermine the importance of caste. Although for purely social purposes, it will, no doubt, linger for many years longer, it is bound ultimately to collapse before the intellectual and economic influences which are moulding modern India. For the latest and most authoritative account of the origin and history of caste, the reader is referred to the article on *Varna* in the "Vedic Index," by Professors Keith and Macdonnell, published in 1912. The four original castes of the Hindus have multiplied to nearly two thousand, owing to the fissiparous tendencies of Hindu social life. Some large castes consist of many thousands of families, while others, notably in Gujarat, comprise scarcely a hundred houses. Among Indian Mahomedans, there are several communities which are virtually castes, though they are not so rigidly closed as Hindu castes,



Indian Christian converts, in some parts of the country, insist on maintaining the distinctions of their original castes, and in a recent case, one caste of Indian Christians contested, in a court of Law, a ruling of their Bishop disallowing the exclusive use of a part of their church to members of that caste. The Parsis are practically a caste in themselves. The observations regarding caste apply more or less to the institution of the Joint family of which really the former is an extension. This institution is rapidly breaking-up, though the rigidity of the Hindu law of succession, operates wholly in its favour.

### Marriage.

Next, to caste, the most peculiar social institution in India, is marriage. The first fact which distinguishes India from the West, in respect of this institution, is the universality of marriage. Every community in this country regards the married life as the only reputable life for men and women. The popular feeling on the subject is well illustrated by a letter, quoted in the Current Census Report of India, written by an Indian gentleman setting forth his claims to a title. He wrote: "I managed to celebrate the marriage of the Raja's sister, who was then 29 years old, and a great disgrace

to the State." The very early age at which marriages take place in this country, is another special feature of Indian social life. For many years, it was believed that infant and too early marriages originated in sacerdotal pretensions, and spread from the Brahmin to the lower castes. But it is now known that such marriages are most frequent among the Animistic, aboriginal tribes, and the latest, and most satisfactory, explanation of the adoption of this custom by Aryan Hindus, whose ancient literature shows no trace of it, is that it was introduced as a security against premarital license when the Aryans, in the course of their expansion on Indian soil, found it necessary to take wives from the indigenous races amongst whom such license was and is even now common. The prohibition of the re-marriage of widows, is a peculiarly Hindu custom but the sentiment against such re-marriages prevails even among Mussalmans. Strenuous efforts are being made by Indian social reformers to raise the marriage age for girls and boys, to relax the restrictions against intermarriages between members of different castes, and to grant freedom to the younger widows, at least, to remarry. These measures have been attended with some measure of success.

### PRINCIPAL CLUBS IN INDIA.

Name of Club.	Established.	Club-house.	Subscription.			Secretary.
			Ent.	Annual	Monthly.	
ABBOTTABAD .. ..	..	Abbottabad N. W. F. Pro.	16	..	10	Capt. C. M. Rennie.
ADYAR .. ..	1890	Maoras ..	75	12	4	F. Buckney.
AGRA .. ..	1863	Near Post Office ..	50	..	7	Lieut. F.H. Budden.
AHMEDNAGAR .. ..	1889	.....	32	..	10	Maj. W. Cortlandt Anderson.
AIJAL .. ..	1893	Lushai Hills E. B. and Assam.	32	..	10	Lt.-Col. Q.H. Loch.
AJMERE .. ..	1883	Quaiser Bagh ..	50	..	15	W. E. Shipp.
AKOLA .. ..	1870	Berar ..	100	..	9	H. C. Greenfield.
ALLAHABAD .. ..	1868	Allahabad ..	100	..	9	Capt. A. V. Clutterbuck.
AMRAOTI .. ..	..	.....	100	..	7	W. J. M. Peeble.
AMRITSAR .. ..	1894	Amritsar ..	20	..	7	A. Mackay.
BANGALORE UNITED SERVICE.	1868	38, Residency Road	100	12	7	Major E. Tennant.
BAREILLY .. ..	1883	Municipal Gardens ..	32	..	9	Capt. W. F. M. Loughman.
BARISAL .. ..	1864	Backerganj, Barisal ..	25	..	12	G. H. W. Davies.
BARRACKPUR .. ..	1850	Grant Trunk Road, 8, River Side.	48	..	10	Major G. D. J. Chatterton.
BASSEIN .. ..	1881	Fyche Street, 50, Bassein, Burma.	50	..	10	Comdr. A. Hamilton.
BELGAUM .. ..	1884	Close to Race Course ..	50	..	10	Major H. M. Thotnas.
BENARES .. ..	..	.....	20	..	14	Wilmot C. Dover.
BENGAL .. ..	1827	33, Chowringhee Road, Calcutta.	300	15	13	Col. W. Weallens.

Name of Club.	Estab- lished.	Club-house.	Subscription.			Secretary.
			Ent.	An- nual.	Mon- thly.	
BENGAL UNITED SER- VICE.	1845	29, Chowringhee Rd...	150	18	10	C. A. Mackenzie.
BOMBAY .. ..	1862	Rampart Row. ..	100	..	6	E. A. Williams.
BURMA .. ..	1885	Merchant Street, Ran- goon.	50	..	6	T. G. Miller.
BYCULLA .. ..	1833	Bellasis Rd., Bombay..	200	12	10	W. P. Pechey.
CALCUTTA .. ..	1907	13, Russell Street	100	..	..	D. Lindsay & Sir Rajendra Nath Mookerjee.
CALCUTTA TURF .. ..	1861	49, Theatrical Road ..	150	25	..	J. Hutcheson.
CAWNPORE .. ..	1844	Cawnpore .. ..	50	8	..	J. Esplin.
CHAMBA .. ..	1891	Dalhousie, Punjab. ..	50	..	14	Capt. H. R. Hoeds.
CHITTAGONG .. ..	1878	Pioneer Hill, Chitta- gong.	50	..	10	Comdr. E. Gray Mills, R. I. M.
CLUB OF CENTRAL INDIA.	1885	Mhow .. ..	50	..	8	Major Charles T. Lamman.
CLUB OF WESTERN INDIA.	1865	Elphinstone Road, Poona.	200	..	6	Vacant.
COCHIN .. ..	1876	.....	50	..	5	Frederic A. Cox.
COCONADA .. ..	1867	Coconada .. ..	70	..	10	L. H. Deane.
COIMBATORE .. ..	1868	Coimbatore .. ..	50	..	7	E. M. Moss.
COONOR .. ..	1894	Coonor, Nilgiris ..	50	12	4	W. Souttar.
DACCA .. ..	1864	Dacca .. ..	50	..	14	Capt. P. L. Ingpen.
DARJEELING .. ..	1868	Auckland Road ..	70	..	7	F. M. Timme.
DELHI .. ..	1898	Ludlow Castle, Delhi.	32	..	10	Lt.-Col. D. M. Da- vidson, I. M. S.
HIMALAYA .. ..	1841	Mussoorie .. ..	100	12	10	R. S. Wahab.
JHANSI .. ..	1887	Next to Public Gar- dens, Jhansi.	50	..	0-8	Major W. Hallaran, R. A. M. C.
MADRAS .. ..	1831	Mount Road, Madras.	250	92	10	Captain W. B. T. Davidson.
MALABAR .. ..	1864	Beach Road, Calicut..	50	12	6	W. O. Wright.
MAYMYO .. ..	1901	.....	100	12	10	Major F. Morris.
MOOLTAN .. ..	1892	Mooltan .. ..	30	..	12	Capt. C. B. Penton.
NAINI TAL .. ..	1864	.....	100	..	5	Capt. J. O. Nelson.
OOTACAMUND .. ..	1840	Ootacamund, Nilgiri Hills.	150	12	5	W. Cruickshank.
ORIENT .. ..	1871	Chauhatti, Bombay	150	..	6	Dossabhai Jhangir.
PEGU .. ..	1877	Prome Rd., Rangoon.	150	12	..	Capt. B. Stephenson.
PESHAWAR .. ..	1883	Peshawar .. ..	32	..	10	Capt. I. M. Conway Poole.
PUNJAB .. ..	1879	Upper Mall, Lahore ..	150	..	12	A. R. Ross Redding.
QUETTA .. ..	1879	Quetta .. ..	60	..	15	Capt. B. Leicester.
RAJPUTANA .. ..	1880	Mount Abu .. ..	50	48	8	Maj. M. P. Corkery.
ROYAL BOMBAY YACHT.	1880	Apollo Bunder .. ..	200	12	7	F. Loch Trevor.
SATURDAY .. ..	.....	7, Wood St., Calcutta.	..	..	..	G. Hervey.
SECUNDERABAD .. ..	1883	Secunderabad, Deccan	100	..	8	W. C. Clark.
SHILLONG .. ..	1878	Northbrook Road, Shillong.	50	..	12	C. H. Holder.
SIALKOT .. ..	..	Sialkot, Punjab ..	32	..	6	Capt. G. S. Rivett- Carnac.
SIND .. ..	1871	Karachi .. ..	200	12	7	T. S. Downie.
TRICHINOPOLY .. ..	1860	Cantonment .. ..	50	..	6	M. H. Ormsby.
TUTICORIN .. ..	1885	Tuticorin .. ..	50	..	8	H. S. Northey.
UNITED SERVICE CLUB	1866	Simla .. ..	200	..	..	Capt. L. R. Vaughan.
UNITED SERVICE CLUB, LUCKNOW.	1861	Chutter Manzil Palace	50	..	8	Major S. D'A. Crook- shank, R. E.
UPPER BURMA .. ..	1889	Port Dufferin, Mandalay	50	..	8	E. D. Haffenden.
WHEELER .. ..	1863	The Mall, Meerut ..	50	..	9	Maj. R. Burton.



## Sun Rises and Sets.

1914.	Delhi.		Calcutta.		Madras.		Bombay.	
	R.	S.	R.	S.	R.	S.	R.	S.
	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
Jan. 1 .. ..	7 14	5 35	6 17	5 3	6 31	5 53	7 11	6 12
11 .. ..	7 15	5 42	6 19	5 10	6 35	5 59	7 14	6 19
21 .. ..	7 14	5 51	6 19	5 17	6 36	6 5	7 15	6 25
31 .. ..	7 10	5 59	6 17	5 14	6 36	6 9	7 14	6 31
Feb. 10 .. ..	7 4	6 7	6 12	5 30	6 34	6 13	7 10	6 36
20 .. ..	6 56	6 14	6 6	5 35	6 30	6 16	7 5	6 41
Mar. 2 .. ..	6 46	6 21	5 58	5 40	6 25	6 18	6 58	6 44
12 .. ..	6 35	6 27	5 49	5 44	6 19	6 10	6 50	6 47
22 .. ..	6 24	6 33	5 40	5 48	6 13	6 20	6 42	6 50
Apr. 1 .. ..	6 12	6 38	5 30	5 52	6 6	6 21	6 34	6 53
11 .. ..	6 1	6 44	5 21	5 55	6 0	6 21	6 20	6 55
21 .. ..	5 51	6 50	5 13	5 59	5 53	6 22	6 18	6 58
May 1 .. ..	5 41	6 56	5 5	6 3	5 48	6 24	6 11	7 1
11 .. ..	5 32	7 2	4 59	6 7	5 45	6 26	6 6	7 4
21 .. ..	5 27	7 8	4 55	6 12	5 42	6 28	6 3	7 7
31 .. ..	5 24	7 13	4 52	6 16	5 41	6 31	6 1	7 11
June 10 .. ..	5 22	7 18	4 51	6 20	5 41	6 34	6 0	7 15
20 .. ..	5 23	7 21	4 52	6 23	5 43	6 37	6 2	7 18
30 .. ..	5 26	7 23	4 55	6 25	5 45	6 39	6 4	7 20
July 10 .. ..	5 30	7 22	4 58	6 25	5 48	6 40	6 7	7 20
20 .. ..	5 35	7 19	5 2	6 23	5 51	6 39	6 11	7 19
30 .. ..	5 41	7 14	5 6	6 19	5 53	6 37	6 14	7 16
Aug. 9 .. ..	5 46	7 7	5 11	6 13	5 55	6 33	6 18	7 11
19 .. ..	5 52	6 57	5 15	6 6	5 57	6 29	6 21	7 4
29 .. ..	5 57	6 47	5 18	5 58	5 58	6 23	6 23	6 57
Sept. 8 .. ..	6 2	6 30	5 21	5 49	5 58	6 16	6 25	6 49
18 .. ..	6 7	6 24	5 24	5 39	5 58	6 9	6 26	6 40
28 .. ..	6 12	6 12	5 27	5 29	5 58	6 2	6 28	6 31
Oct. 8 .. ..	6 17	6 0	5 30	5 19	5 59	5 55	6 30	6 23
18 .. ..	6 23	5 49	5 34	5 10	6 0	5 49	6 33	6 15
28 .. ..	6 30	5 40	5 39	5 3	6 2	5 45	6 37	6 9
Nov. 7 .. ..	6 37	5 32	5 44	4 57	6 4	5 42	6 41	6 4
17 .. ..	6 45	5 27	5 50	4 53	6 8	5 39	6 46	6 1
27 .. ..	6 53	5 21	5 57	4 51	6 13	5 39	6 52	6 0
Dec. 7 .. ..	7 1	5 24	6 4	4 52	6 19	5 42	6 58	6 1
17 .. ..	7 7	5 27	6 10	4 55	6 24	5 45	7 4	6 4
27 .. ..	7 12	5 32	6 15	5 0	6 29	5 50	7 9	6 9

For Baroda .. .. add H. M. 1 0  
 „ Mandalay .. .. „ 0 29  
 „ Hongkong .. .. „ 0 47  
*To Calcutta.*

For Mangalore .. .. add H. M. 0 22  
 „ Bangalore .. .. „ 0 10  
 „ Bangkok .. .. „ 0 22  
*To or from Madras.*

TABLE OF WAGES, INCOME, &c.  
Showing the amount for one or more days at the rates of 1 to 16 Rupees per Month of 31 Days.

Rupees.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Days.	R.s.a. p.	R.s.a. p.	R.s.a. p.	R.s.a. p.	R.s.a. p.	R.s.a. p.	R.s.a. p.	R.s.a. p.	R.s.a. p.	R.s.a. p.	R.s.a. p.	R.s.a. p.	R.s.a. p.	R.s.a. p.	R.s.a. p.	R.s. a. p.
1	0 60	1 00	1 60	2 00	2 60	3 20	3 70	4 30	4 90	5 50	6 10	6 70	7 30	7 90	8 50	9 10
2	0 10	0 20	0 30	0 40	0 50	0 60	0 70	0 80	0 90	1 00	1 10	1 20	1 30	1 40	1 50	1 60
3	0 10	0 20	0 30	0 40	0 50	0 60	0 70	0 80	0 90	1 00	1 10	1 20	1 30	1 40	1 50	1 60
4	0 20	0 40	0 60	0 80	1 00	1 20	1 40	1 60	1 80	2 00	2 20	2 40	2 60	2 80	3 00	3 20
5	0 20	0 40	0 60	0 80	1 00	1 20	1 40	1 60	1 80	2 00	2 20	2 40	2 60	2 80	3 00	3 20
6	0 30	0 60	0 90	1 20	1 50	1 80	2 10	2 40	2 70	3 00	3 30	3 60	3 90	4 20	4 50	4 80
7	0 30	0 60	0 90	1 20	1 50	1 80	2 10	2 40	2 70	3 00	3 30	3 60	3 90	4 20	4 50	4 80
8	0 40	0 80	1 20	1 60	2 00	2 40	2 80	3 20	3 60	4 00	4 40	4 80	5 20	5 60	6 00	6 40
9	0 40	0 80	1 20	1 60	2 00	2 40	2 80	3 20	3 60	4 00	4 40	4 80	5 20	5 60	6 00	6 40
10	0 50	1 00	1 50	2 00	2 50	3 00	3 50	4 00	4 50	5 00	5 50	6 00	6 50	7 00	7 50	8 00
11	0 50	1 00	1 50	2 00	2 50	3 00	3 50	4 00	4 50	5 00	5 50	6 00	6 50	7 00	7 50	8 00
12	0 60	1 20	1 80	2 40	3 00	3 60	4 20	4 80	5 40	6 00	6 60	7 20	7 80	8 40	9 00	9 60
13	0 60	1 20	1 80	2 40	3 00	3 60	4 20	4 80	5 40	6 00	6 60	7 20	7 80	8 40	9 00	9 60
14	0 70	1 40	2 10	2 80	3 50	4 20	4 90	5 60	6 30	7 00	7 70	8 40	9 10	9 80	10 50	11 20
15	0 70	1 40	2 10	2 80	3 50	4 20	4 90	5 60	6 30	7 00	7 70	8 40	9 10	9 80	10 50	11 20
16	0 80	1 60	2 40	3 20	4 00	4 80	5 60	6 40	7 20	8 00	8 80	9 60	10 40	11 20	12 00	12 80
17	0 80	1 60	2 40	3 20	4 00	4 80	5 60	6 40	7 20	8 00	8 80	9 60	10 40	11 20	12 00	12 80
18	0 90	1 80	2 70	3 60	4 50	5 40	6 30	7 20	8 10	9 00	9 90	10 80	11 70	12 60	13 50	14 40
19	0 90	1 80	2 70	3 60	4 50	5 40	6 30	7 20	8 10	9 00	9 90	10 80	11 70	12 60	13 50	14 40
20	1 00	2 00	3 00	4 00	5 00	6 00	7 00	8 00	9 00	10 00	11 00	12 00	13 00	14 00	15 00	16 00
21	1 00	2 00	3 00	4 00	5 00	6 00	7 00	8 00	9 00	10 00	11 00	12 00	13 00	14 00	15 00	16 00
22	1 10	2 20	3 30	4 40	5 50	6 60	7 70	8 80	9 90	11 00	12 10	13 20	14 30	15 40	16 50	17 60
23	1 10	2 20	3 30	4 40	5 50	6 60	7 70	8 80	9 90	11 00	12 10	13 20	14 30	15 40	16 50	17 60
24	1 20	2 40	3 60	4 80	6 00	7 20	8 40	9 60	10 80	12 00	13 20	14 40	15 60	16 80	18 00	19 20
25	1 20	2 40	3 60	4 80	6 00	7 20	8 40	9 60	10 80	12 00	13 20	14 40	15 60	16 80	18 00	19 20
26	1 30	2 60	3 90	5 20	6 50	7 80	9 10	10 40	11 70	13 00	14 30	15 60	16 90	18 20	19 50	20 80
27	1 30	2 60	3 90	5 20	6 50	7 80	9 10	10 40	11 70	13 00	14 30	15 60	16 90	18 20	19 50	20 80
28	1 40	2 80	4 20	5 60	7 00	8 40	9 80	11 20	12 60	14 00	15 40	16 80	18 20	19 60	21 00	22 40
29	1 40	2 80	4 20	5 60	7 00	8 40	9 80	11 20	12 60	14 00	15 40	16 80	18 20	19 60	21 00	22 40
30	1 50	3 00	4 50	6 00	7 50	9 00	10 50	12 00	13 50	15 00	16 50	18 00	19 50	21 00	22 50	24 00
31	1 50	3 00	4 50	6 00	7 50	9 00	10 50	12 00	13 50	15 00	16 50	18 00	19 50	21 00	22 50	24 00

## The Monsoon of 1913.

The meteorology of India is fully described in pages 301-303. We give below, from official sources, a brief summary of the meteorology and rainfall for the year 1913.

The monsoon arrived at about the usual time on both sides of India, but it extended with unusual rapidity into the interior so that in the Punjab the first burst of monsoon rainfall occurred in the second week of June, about a fortnight in advance of the average.

A vigorous monsoon prevailed, with but slight interruptions, until the middle of July and gave, on the whole, a fairly well distributed rainfall. During the succeeding three weeks a series of four disturbances appeared over the Bay; and of these two travelled westwards along the head of the Peninsula causing a marked concentration of rainfall in the belt of the country stretching from Orissa to Sind to the detriment of the United Provinces, Central India, East, and Rajputana. A break in the rains set in over the interior of the country at the end of the first week in August, lasting for a fortnight, and after this monsoon conditions were introduced by a depression from the Bay which crossed inland on the 22nd and travelled along the head of the Peninsula into Sind. Its disappearance was succeeded by the formation over the Bay on the 28th and 29th of another disturbance which also advanced to Sind. The effect of these two disturbances was to accentuate the abnormal features of the rainfall distribution which had characterized July. The monsoon weakened materially on the 4th of

September, and ceased to give rain of any importance in the United Provinces and North-West and Central India after the 9th, which may therefore be regarded as the date of cessation of the regular monsoon rainfall of 1913 in those areas. As a rule monsoon conditions hold in September in Central India and the west of the United Provinces, while in the Central Provinces and the east of the United Provinces the rainy season does not close until about the middle of October. In all these areas, however, it is possible for rain to be brought by a storm from the Bay until the middle of November.

On the mean of the whole country, the monsoon rainfall was only 1½" or 4 per cent in defect, but its geographical distribution was not satisfactory. Thus the aggregate of the whole season was greater than usual only in Burma, Bengal, Bihar and Orissa, the Punjab, South-West, Sind, Gujarat, Central India West and Berar, and below the normal in the remaining twenty-two sub-divisions. The defect was over 20 per cent in no less than eleven of the latter, and was serious, upwards of 45 per cent, in the United Provinces West, Rajputana West, Central India East and the Madras Deccan.

The most noteworthy features of the monsoon currents of this year thus were: (a) their early arrival in Upper India, (b) their weakness during the greater part of the season in the United Provinces, Rajputana and Central India, and their abnormal diversion to the comparatively dry zone of Gujarat and Sind, and (c) their extremely early withdrawal from the central and northern parts of the country.

### RAINFALL, JUNE TO SEPTEMBER.

	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
Burma	81.1	73.9	+ 7.2	+10
Assam	53.7	60.3	- 6.6	-11
Bengal	70.0	56.1	+13.9	+25
Bihar and Orissa	54.5	45.3	+ 9.2	+20
United Provinces	22.5	36.6	-14.1	-39
Punjab	16.5	16.5	0	0
North-West Frontier Province	3.4	5.1	-1.7	-33
Sind	11.3	4.8	+ 6.5	+135
Rajputana	12.9	18.4	- 6.4	-35
Bombay	37.7	38.6	- 0.9	-2
Central India	25.2	34.0	- 8.8	-26
Central Provinces	36.0	40.6	- 4.6	-11
Hyderabad	21.1	27.1	- 6.0	-22
Mysore	15.1	15.5	- 0.4	-3
Madras	21.3	28.1	- 4.8	-18
Mean of India	35.3	36.9	- 1.6	-4

## Vaccination in India.

Vaccinations in British India are performed by the agency of a special department established for the purpose and to a small extent by the staff attached to the ordinary hospitals and dispensaries. The work is carried on as a branch of the Sanitary Department in each province under the general control of the provincial Sanitary Commissioner; and the staff employed in 1911-12 consisted of 18 European and 553 Indian supervising officers and 6,137 vaccinators, the latter including 2,341 licensed vaccinators employed in Bengal and Eastern Bengal and Assam.

In the twenty-five years ending 1911-12 the number of persons vaccinated annually has nearly doubled. The following table shows the number of persons vaccinated, the number of deaths from small-pox, and the ratio of deaths per mille of population during the last five years.

[Note.—Deaths from small-pox entered in this table represent the registered mortality from this cause among the general population whether vaccinated or not, and the ratio of deaths bears on the population of the tracts in which registration of births and deaths is carried out.]

	Number of persons vaccinated.	Population in which births and deaths were registered.	Deaths from small-pox.	Ratio of deaths from small-pox per mille of population.
1907-08 ..	9,169,873	225,921,260	103,988	.46
1908-09 ..	9,096,362	226,409,600	170,694	.76
1909-10 ..	9,015,414	226,394,326	101,152	.45
1910-11 ..	8,996,120	226,438,733	51,315	.23
1911-12 ..	10,591,708	238,688,119	68,535	.25

**Number of Deaths.**—The average number of deaths from small-pox per mille of population in the decade ending 1890-91 was .63, in the next decade .39, and in the last decade .42. The ratio of deaths in 1911-12 is lowest in the United Provinces and relatively high in Madras, the North-West Frontier Province, and Eastern Bengal and Assam. In 1911-12 the number of primary and re-vaccination operations was 8,780,525 and 903,724 against 8,286,600 and 794,591, respectively, in the previous year. The numbers vaccinated by the special department are divided not unequally between the sexes, males numbered 5,007,832 and females 4,434,974 in 1911-12. The primary cases numbered 8,675,420 as compared with 8,182,652 in 1910-11, and the percentage of success in the two years was 96.5 and 91.4 respectively. Of the re-vaccinations, which increased from 750,869 in 1910-11 to 859,200 in 1911-12, 74.2 per cent. were successful against 84.9 in the previous year. Vaccinations at dispensaries showed a slight increase, there having been 149,629 operations in 1911-12 compared with 147,673 in the previous year. On an estimated birth rate of 40 per thousand of the census population, 48.0 per cent. of the children under a year old were protected by vaccination in 1911-12 as against 46.4 during the preceding year. The percentage in the several provinces varied greatly, from 69.1 in the Central Provinces and Berar and 65.8 in the Punjab to 19.0 in Burma and 8.5 in Coorg.

**Cost of the Department.**—The cost of the special vaccination department in 1911-12 was Rs. 15,61,261, the average for the five years ending in 1911-12 being Rs. 15,06,119. The bulk of the expenditure is defrayed from provincial, local, and municipal funds, divided in 1911-12 as follows:—

	Rs.
Provincial .. .. .	7,09,783
Local .. .. .	6,08,003
Municipal .. .. .	2,27,594

The average cost of vaccination per head in British India was two annas and ten pies in 1911-12. The cost per head was highest in Bombay—eight annas and nine pies, and least in Bengal—one anna and five pies.

**Compulsion.**—Vaccination is compulsory in all the municipalities and 193 villages and 70 ranges of the Madras Presidency. In Eastern Bengal and Assam it is in force in all municipalities except Barpeta and also in Sibsagar and Shillong stations and Jorhat and Golaghat unions. In the United Provinces it is in force in all municipalities and cantonments, but its provisions have been enforced in different places with varying degrees of stringency. The Vaccination Act was amended during 1907-08, so as to make it applicable to notified areas in these provinces, and steps are being taken to apply it to these areas gradually; in 1911-12 the Act was applied to three notified areas making a total of 40 in place of 37 in 1910-11. In the Punjab the Vaccination Act was extended to the town of Kalasagh in the Mainwali district during the year. In the Central Provinces a proposal to extend the Act to all municipal towns is under consideration. Vaccination is compulsory throughout the administrations of Ajmer-Merwara and Coorg. As regards the other provinces the number of towns or municipalities where the Act is in force is noted below:—

Burma .. .. .	47 towns	out of 52
Bengal .. .. .	132	182
Punjab .. .. .	41	171
North-West Frontier Province .. .. .	10	20
Bombay .. .. .	108	199
Central Provinces .. .. .	59 municipalities	59

## Hospitals in India.

Hospitals and dispensaries in British India are divided into the six classes shown in the margin:—The first two classes include all institutions maintained from Provincial funds and under Government management. The fact that an institution possesses endowments or receives contributions from local funds or private subscriptions is not regarded as a reason for not classing it as "State," so long as Provincial or Imperial funds are practically responsible for all the charges connected with it. Hospitals and dispensaries of the first class are open to all comers, while those coming under the second head serve only that special section of the public indicate in the sub-classification.

The third class includes all institutions the management of which is vested in local boards or municipalities or which are guaranteed or maintained by local or municipal funds. The fact that such an institution is aided by private subscriptions, or receives assistance from Government in the shape of part of the salary of the medical officer, grants of medicine, or otherwise, is not regarded as a reason for not classing it as a local fund dispensary so long as its existence is practically dependent upon local funds.

The fourth class includes institutions almost entirely supported by private subscriptions or guarantee, but receiving some aid from Government or local funds.

The fifth class is comprised of institutions maintained entirely at the cost of private individuals or associations. The fact that Government provides a superior inspecting agency is not regarded as a reason for treating an institution of this kind as "private-aided."

The sixth class comprises all railway dispensaries whether maintained by State railways or others.

The number of institutions open on the last day of 1911 in each of the above six classes was as follows:—

Class I	.. .. .	1911	Class III	.. .. .	2,207
Class II	.. .. .	258	Class IV	.. .. .	247
Police	.. .. .	278	Class V	.. .. .	709
Forests and Surveys	.. .. .	7	Class VI	.. .. .	375
Canals	.. .. .	109			
Others	.. .. .	61			
		455			
					Total 4,251

**Number of Patients.**—The number of indoor and outdoor patients treated in each province was:—

	Indoor.	Outdoor.	Total.
Madras	98,785	6,347,626	6,446,409
Bengal	98,780	4,871,073	4,969,853
United Provinces	90,891	4,833,055	4,923,946
Punjab	84,101	4,512,078	4,596,177
Eastern Bengal and Assam	34,584	4,535,185	4,569,769
Bombay	71,788	1,210,218	4,285,006
Central Provinces and Berar	18,834	2,160,886	2,179,720
Burma	71,973	1,580,528	1,652,501
North-West Frontier Province	20,241	992,044	1,012,285
Baluchistan	5,830	300,332	306,171
Coorg	2,359	78,156	80,515
Ajmer-Merwara	957	67,440	68,403
Total	602,130	34,488,627	35,090,757

The total number of surgical operations performed in all hospitals and dispensaries was 1,339,911, being at the rate of one operation for every 30 patients indoor and outdoor.

**The Income of the Hospitals** and dispensaries in the group consisting of State-Public (Class I), Local Fund (Class III) and Private-aided (Class IV) institutions was Rs. 1,30,43,562, as compared with Rs. 1,19,53,295 in the previous year. As much as 80 per cent of this total was derived from the following sources:—

	1909	1910	1911
	Rs.	Rs.	Rs.
Government contribution	41,22,892	43,03,585	46,52,892
From Local Funds	34,27,363	34,11,253	34,69,424
From Municipal Funds	22,08,284	22,86,508	23,16,070

The remainder was mainly derived from interest on investments and from subscriptions (Rs. 2,85,887 from Europeans and Rs. 7,20,584 from Indians).

In the last five years the income from Imperial or Provincial Funds showed a decrease by 11.8 per cent, but the income from Local Funds showed an increase by 19.2 per cent, and that from Municipal Funds by 21.6 per cent.

The expenditure in 1911 amounted to Rs. 1,29,93,987 (including Rs. 7,30,000 invested), of which Rs. 56,41,872 (43 per cent) represents salaries and wages. The other principal items of expenditure were:—drugs and medicines Rs. 17,20,310 (13 per cent), the cost of indigenous drugs representing 9 per cent of the sum, diet Rs. 12,33,778 (10 per cent); and construction and repairs Rs. 18,43,712 (14 per cent).



## Sanitary Progress in India.

1 (a) Sanitation.—The non-recurring grants for urban sanitation in 1913-14 amounting to 150 lakhs will be distributed as follows:—

	Rs.
United Provinces..	27,50,000
Madras ..	27,00,000
Bombay ..	27,00,000 (of which half a lakh is intended for the Bombay Bacteriological Laboratory).

Bengal ..	20,00,000
Punjab ..	14,50,000
Burma ..	10,50,000
Central Provinces.	10,50,000
Bihar and Orissa ..	10,00,000
Assam ..	3,00,000

In addition the following non-recurring grants amounting to 13½ lakhs have been made for special schemes:—

	Rs.
North-West Frontier Province ..	2,00,000
Delhi Province (for Delhi city) ..	5,00,000
Mysore (for Bangalore) ..	4,00,000
Central India (for Indore Residency Bazar) ..	2,00,000
Baluchistan (for Quetta) ..	50,000
Cooorg (for Mercara) ..	25,000

(b) of the recurring grants for sanitation amounting to 45 lakhs a year, 5 lakhs will be reserved for research and anti-malarial projects and the remaining 40 lakhs will be distributed as follows

	Rs.
Madras ..	6,00,000
Bombay ..	6,00,000
United Provinces ..	6,00,000
Bengal ..	5,00,000
Punjab ..	4,00,000
Bihar and Orissa ..	3,00,000
Burma ..	3,00,000
Central Provinces ..	3,00,000
Assam ..	50,000
Bangalore ..	50,000
North-West Frontier Province ..	50,000
Delhi ..	50,000
Reserve to meet unforeseen demands) ..	2,00,000

The distribution both of the non-recurring and recurring grants is based mainly on a consideration of the proportionate urban population, that is to say communities of 5000 and upwards, or in which some form of Municipal Administrations in force modified, where necessary, in accordance with list of schemes actually ready and waiting for funds in each province.

2. The grant of 5 lakhs recurring for research and anti-malarial projects has been allotted to the Indian Research Fund. The Director-General, Indian Medical Service, will explain in detail the nature of the research work in progress.

3. Cesses.—Local Governments will now be in a position to supplement the resources of District Boards by making over to them the entire net proceeds of the land cess in those Provinces in which a considerable portion of this cess has hitherto been diverted for provincial purposes. The provinces thus affected

and the actual net gain to District Boards of income are shown below:—

	Rs.
Bengal ..	24,93,000
Bihar and Orissa ..	22,92,000
United Provinces ..	20,53,000
Punjab ..	2,08,000
North-West Frontier Province ..	26,000
Total ..	79,72,000

This is a matter in which the Education Department as being in charge of Local self-government has been interested from the very first. They are interested also from the point of view of Sanitation. The Government of India trust that a substantial portion of the sum now added to the resources of the boards will be set apart for the improvement of the rural water supply, for antimalarial measures, for the protection of grain stores and markets in plague-infected localities, and generally for the sanitation of villages and small towns. General schemes of rural sanitation are not yet sufficiently advanced to justify the Government of India in making large grants for this object. But the Government of India are deeply interested in the subject and will consider favourably any proposal to utilise for rural sanitation part of the grants now made provided a practical scheme is put forward.

4. Sanitary services.—Schemes for the re-organisation of the Sanitary services on the lines of the Education Department Resolution No. 921-936, dated 23rd May 1912, are maturing in the various provinces. When brought into force the number of Deputy Sanitary Commissioners will have been increased from 13 to 26, the number of trained 1st class Health Officers from 7 to 29 and of 2nd class Health Officers from 7 to 92, and it is hoped that Indians will be appointed in increasing numbers to the Sanitary Services. The assignment of Rs. 2,30,000 recurring from Imperial to Provincial revenues shown in this year's Budget has been increased to Rs. 2,91,000 in order to provide for expansion. The foundations are thus being laid of modern Sanitary establishments which will no doubt grow.

One of the matters brought out at the Madras Sanitary Conference was the urgent need of organising Sanitary Engineering Establishments. Local Governments have been addressed on the subject.

5. Since January 1911 when the Department got to work grants have been made to local Governments amounting to three crores forty-five lakhs of rupees or £ 2,300,000 non-recurring and four-two lakhs and ninety-one thousand rupees recurring or £ 286,066 for schemes of urban and general sanitation.

A grant of ten lakhs of rupees or £ 666,666 non-recurring and of five lakhs of rupees or £ 33,333 recurring has also been made to the Indian Research Fund for research and anti-malarial projects.

The grants thus aggregate four crores two lakhs and ninety-one thousand rupees, of which forty-seven lakhs and ninety-one thousand rupees or £ 319,400 are recurring and three crores and fifty-five lakhs of rupees or £ 2,866,666 are non-recurring.

## Bengal Covenanted Pilot Service.

Appointments to the Bengal Pilot Service are made by the Secretary of State for India and by the Government of Bengal; the latter appointments are limited to Anglo-Indians and Eurasians, and are made under separate regulations. In the case of appointments made by the Secretary of State, preference is given, *ceteris paribus*, to candidates who have passed through one of the training ships "Worcester" and "Conway."

Candidates for the Secretary of State's ap-

When on the running list:—

	Rs.
Junior Leadsman ..	.. 107 a month
Second Mate Leadsman ..	.. 135 a month
First Mate Leadsman ..	.. 160 a month

pointments must not be less than 18 and not more than 22 years of age. They must produce a Board of Trade or Colonial Certificate of Competency as a Second Mate, or any higher grade, for a foreign-going ship, and evidence of having served at sea not less than two years in a square-rigged sailing vessel of over 300 tons. The rates of pay and allowances of Leadsman Apprentices while on duty are as follows, without exchange compensation allowance:—

} Plus 50 per cent of the lead money collected from the ships on which they do duty.

When employed as Chief and Second Officer:—  
Chief Officers of pilot vessels Rs. 160 a month

As Second Officers of pilot vessels .. Rs. 135 a month

Plus a mess allowance of Rs. 40 a month.

After five years' service a Leadsman Apprentice is allowed to appear at an examination to qualify him for appointment as Mate Pilot, but if he shows exceptional ability, and has passed each previous examination on his first attempt, bears a very good character, and is otherwise well reported on, this period may, with the special sanction of Government, be reduced to 4 years. After three years' service as Mate Pilot, he is permitted to go up for an examination to qualify for appointment as Master Pilot, and, if successful, is promoted to that grade on the occurrence of a vacancy. Vacancies which occur in the grade of Branch Pilot are filled by promotion from the Master Pilots' grade, of men who have passed the Branch Pilots' examination. If the Local Government has reason to believe that a Pilot, is, owing to physical unfitness of any kind, incapable of discharging his duties properly, it arranges for his medical examination and takes such action as may seem desirable when the results of that examination are communicated. In particular, Pilots are medically examined after the occurrence of any accident to the vessel in their pilotage charge, if the circumstances tend to show that the accident was in any way attributable to physical unfitness on the part of the Pilot.

Pilots are not entitled to any salary while on pilotage duty, but receive as their remuneration a share, at present 50 per cent., but liable to alteration at the discretion of the Government of Bengal, of the pilotage dues paid by ships piloted by them. The Government of Bengal reserves to itself the right to require all Pilots to obtain a Home Trade Master Mariner's Certificate before they are promoted to be Senior Master Pilots. Every member of the Pilot Service is subject to such rules as the Government of India or as the Government of Bengal under the control of the Government of India, may from time to

time respectively make in regard to discipline, leave, leave allowances, number of officers in the service, distribution into grades, tonnage of ships to be allotted to the several grades, etc., and in all respects he is amenable to such orders as may be passed by the Government of Bengal, and is liable to degradation, suspension and dismissal by the Government of Bengal for any breach of such rules or orders, or for misconduct.

**Other Pilot Services.**—Bengal is the only province that has a covenanted pilot service; elsewhere pilotage is under the control of the Local Port Trust. In Bombay, for example, the Port Trust have drawn up the following rules for entry into the service:

To be eligible for admission to the Bombay Pilot Service, candidates must be British Subjects, and at least 21 years of age but not more than 32. They must hold certificates of competency as Master and excellent testimonials as regards conduct, character and ability. They will be examined in Port Office for form and colour vision as prescribed by the Board of Trade, and also an extra form vision test of each eye separately and must undergo an examination by, and produce a certificate from, the Medical Officer appointed by the Port Trustees that they are physically fit, and are of a sufficiently hardy or strong constitution to perform a Pilot's duty and that they, to all appearance, enjoy good health. Any Probationer may, with the sanction of the Port Officer go before the Examining Committee, and if he passes he will be eligible for appointment as a 3rd Grade Pilot when a vacancy occurs. A Probationer, not passing the required examination to qualify for performing a Pilot's duties within six months after the date of his appointment, is liable to be struck off the list. Promotion to the various grades in the Pilot service is generally given by seniority, but the Port Trustees reserve to themselves the right of passing over any Pilot. There are 18 Pilots, six in each grade, who are paid according to the number of vessels piloted. The average pay of a 1st Grade Pilot is about Rs. 850, 2nd Grade about Rs. 750 and 3rd Grade about Rs. 650.

## Wild Animals and Snakes.

In the 25 years ending in 1911 the number of human beings reported to have been killed in British India by wild animals was 67,389, and by snakes 543,994, making together a total of 611,383, but the figures are far from accurate. Up to the year 1900 deaths from mad dogs and jackals were included in the returns, but as these animals are not ordinarily dangerous to human beings or cattle, the figures have been omitted since 1901. The average number of persons killed during successive quinquennia since 1876 is as follows:—

	By wild animals.	By snakes.
Five years ending 1880 ..	3,090	17,214
„ „ „ 1885 ..	2,752	19,605
„ „ „ 1890 ..	2,581	21,267
„ „ „ 1895 ..	2,925	21,054
„ „ „ 1900 ..	3,456	22,175
„ „ „ 1905 ..	2,461	22,206
„ „ „ 1910 ..	2,210	21,571
For the year 1911 ..	1,898	21,312

As regards the mortality from wild animals it will be observed that the average number of deaths is lowest in the quinquennium ending 1910. The abnormal number of deaths in the quinquennium ending 1900 is ascribed indirectly to the famine conditions prevailing in Bengal during the year 1900, which drove people in large numbers to the jungles in search of food, while the drought also brought down wild animals into the open country in search of water. The total number of persons killed in 1911 aggregated 1,898 as compared with 2,382 in 1910, the decrease being noticeable in every province except Bombay, but there the total number of deaths was 26, as compared with 22 in the previous year.

The tiger is the animal most destructive to human life, and is responsible for 38 per cent of the total number of deaths caused by wild animals in the last five years. Leopards, wolves, and bears account for 15, 12, and 4 per cent, respectively.

Of the total number of persons (namely 1,898) killed in the year 1911, the tiger accounted for 762, the leopard for 253, and wolves and bears for 270. Elephants and hyenas are the two other classes whose ravages are distinguished in the returns; between them they were responsible for 76 deaths in 1911. Of the 565 deaths attributed to "other animals," 243 are assigned to alligators and crocodiles, 63 to wild pigs, 24 to buffaloes, 23 to wild dogs, and 160 to unspecified animals.

The average annual mortality from snake-bite fell from 22,296 in the quinquennium ending 1905 to 21,571 in the last quinquennium. In 1911, there were 24,312 deaths from this cause against 22,478 in the previous year, all provinces except the Eastern Bengal and Assam, the Punjab and the Central Provinces, contributing towards the increase. It is noticeable that there were twelve deaths from snake-bite for every one caused by wild animals in the year under review.

**Loss of Cattle.**—In the 25 years dealt with in these tables, the number of cattle killed by wild animals and snakes was 2,067,920 and 187,436, respectively, making a total of 2,255,356. The average number of cattle killed during successive quinquennia since 1876 is as follows:—

	By wild animals.	By snakes.
Five years ending 1880 ..	47,969	3,052
„ „ „ 1885 ..	47,501	1,810
„ „ „ 1890 ..	63,030	3,157
„ „ „ 1895 ..	83,955	4,857
„ „ „ 1900 ..	82,465	8,476
„ „ „ 1905 ..	87,761	9,322
„ „ „ 1910 ..	90,037	10,072
For the year 1911 ..	91,704	10,534

In the case of cattle, the leopard is even more destructive than the tiger, and between them they are responsible for 80 per cent of the total deaths from wild animals in the last five years (the proportion being: leopards 48 per cent and tigers 32 per cent). Wolves come next with 12 per cent.

Of the total number of cattle killed (namely 91,704) by wild animals exclusively in 1911, the leopard accounted for 32,745, the tiger for 28,832, and wolves for 11,922. Of the cattle destroyed by "other animals," 56 per cent is ascribed to wild dogs.

The statistics relating to the **Destruction of Wild Animals and Snakes**, especially the latter, are even more imperfect than those showing the deaths of human beings and cattle. The rewards given by Government for the destruction of wild beasts have averaged Rs. 1,05,652 annually for the last three years, of which 64 per cent is on account of tigers and leopards killed.

The total number of licenses issued under the Indian Arms Act, 1878, in 1911, in Form XVI (for purposes of sport, protection or display) and Forms XVII and XVIII (for purposes of destruction of wild animals doing injury to human beings, cattle, or crops) was 21,448; of the number granted in previous years some 160,566 continued still in force.

## Public and other Holidays for 1914.

The following holidays are sanctioned by Government Under Section 25 of Act XXVI of 1881, entitled the "Negotiable Instruments' Act, 1881," in addition to the New Year's Day (1st January), Good Friday (10th April) and Christmas Day (25th December), which are already specified as holidays under the above section:—

Maha Shivaratri .. .. .	February	23
Holi .. .. .	March	11
Jamshedi-Naoroz .. .. .	March	21
Ramnavami .. .. .	April	4
Easter .. .. .	April	11 & 13
Zarthost-no-diso .. .. .	June	19
Cocoanut Day .. .. .	August	5
Gokul Ashtami .. .. .	August	14
Ramzan-Id and Ganesh Chaturthi .. .. .	August	24
Parsi New Year .. .. .	September	11 & 12
Khurdad Sal .. .. .	September	17
Dasara .. .. .	September	23
Diwali .. .. .	October	19 & 20
Bakri Id .. .. .	October	30
Christmas .. .. .	December	24 & 26
New Year's Eve .. .. .	December	31

The following are the Hindu, Parsi, Mahomedan, Jewish, Jain and Christian holidays recognised by Government for the year 1914 in addition to those under the Negotiable Instruments Act, 1881:—

### HINDU.

Makar Sankranti .. .. .	January	14
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### PARSI—SHEHENSNAHL.

A'far Jashan .. .. .	May	18
Gatha Gahambars .. .. .	September	9 & 10

### PARSI—KADMI.

A'van Jashan .. .. .	March	20
A'dar Jashan .. .. .	April	13
Zarthost-no-diso .. .. .	May	20
Gatha Gahambars .. .. .	August	10 & 11
New Year .. .. .	August	12 & 13
Khurdad Sal .. .. .	August	18

### MAHOMEDAN—SUNNI.

Shab-e-Barât .. .. .	July	10
Ramzan 'Id .. .. .	August	25
A'shura .. .. .	November	30
Mahm Fair (in Bombay City only) .. .. .	December	3

### MAHOMEDAN—SHIAH.

Shahadat-e-Imam Hasan .. .. .	January	26
Id-e-Maylud .. .. .	February	13
Ramzan 'Id .. .. .	August	25
A'shura .. .. .	November	30

### JEWISH.

Pesach .. .. .	April	11 & 17
Roshi Hoshana .. .. .	September	21 & 22
Kippur .. .. .	September	29 & 30
Sukkoth .. .. .	October	5 & 13

### JAIN.

Chaitra Sud 15 .. .. .	April	10
Shravan Vad 13 to Bhadrava Sud 1 .. .. .	August	19 to 22
Samvat Sati .. .. .	August	25
Pujusan .. .. .	August	26
Kartik Sud 15 .. .. .	November	2

### CHRISTIAN.

Day following New Year's Day .. .. .	January	2
Christmas .. .. .	December	25, 29 & 30

## Wireless Telegraphy.

The annual report of the Indian Telegraph Department for 1912-13 states that new wireless telegraph stations were opened during the year at Karachi and Butcher Island, Bombay, with a working range of 600 miles, for the exchange of ships at sea, and the temporary station at Bombay was closed. In addition to the erection by the department of the four large Marconi stations at Karachi, Nagpur, Lahore and Bombay, an important event of interest in India has been the large increase which has taken place in the number of ships fitted for wireless telegraphy. Most of the passenger steamers plying regularly in Indian waters are now fitted with wireless apparatus. The increased demands made by ships on the coast stations have been met by opening a new station at Karachi, and by arranging that Calcutta, Diamond Island, Mergui and Victoria Point shall operate by night as well as by day.

**Licences to Officers.**—The Government of India have decided that the granting of licences to military officers in respect of wireless telegraph apparatus used for experimental purposes shall be regulated by the following general principles: (1) When an officer conducts experiments in wireless tele-

graphy in his official capacity at the expense of Government no licence is required, but only executive permission, which may be given so far as the Telegraph Department is concerned by the Director-General, Posts and Telegraphs.

(2) When an officer carries on experiments as a private individual at his own expense he must obtain a licence. If the approval of the military authorities is required to what he proposes to do he should obtain such approval before the Director-General, Posts and Telegraphs, is approached. The licence will then be submitted by the Director-General, Posts and Telegraphs, for the sanction of the Government of India.

(3) With reference to the above, attention is drawn to the necessity for applying for licences to own and use wireless telegraphy apparatus or installations, experimental or otherwise. Applications for such licences will be submitted through the Chief of the General Staff and will contain particulars regarding the apparatus showing (a) system it is proposed to employ, (b) maximum range of signalling with applicants own receiving apparatus, (c) power (current and voltage), (d) source of power.

## MILITARY FLYING SCHOOL.

The Government of India have sanctioned the establishment of an Indian Central Flying School, at Sitapur, with effect from the 1st October, 1913. The object of this school is to gain experience in aviation under Indian conditions with a view to its ultimate expansion as a training establishment. The Commandant has entire control of the school under the direct orders of Army Headquarters. The school consists of a commandant and three flying officers with the necessary medical and subordinate personnel. The British and Indian subordinate staff will consist of civilians only who will be engaged on contract for specified periods. They will not be required to fly and consequently will not be eligible for the gratuities and special pensions admissible to those injured on flying duty. They will be provided with free quarters.

**Conditions of appointment.**—The qualifying conditions of appointment for the commandant, and flying officers, are as follows:—

(1) To hold a Royal Aero Club's pilot certificate; (2) to be recommended by his Commanding officer; (3) medical fitness (as stated below); (4) not less than two years' service (British service), three years' service (Indian Army). In addition Indian Army officers must have qualified for "final retention"; (5) not above the rank of Captain; (6) a natural bent for the mechanical; (7) to be unmarried.

Officers will be appointed to the staff of the school for a period of four years from the date of joining, the appointment being probationary

for the first six months, they will be seconded in their regiments. An officer who is found at any time to be unfitted for the duties of the appointment will be required to rejoin his Regiment. If injured on flying duty the Commandant and flying officers will be eligible for gratuities and pensions under the conditions and at the rates laid down in Army Regulations, India, Volume 1, Paragraph 748 *et seq.* For officers who have been wounded in action in the event of death within seven years as the result of injuries so received pensions, etc., may be awarded under the conditions applicable to the case of officers killed in action or dying of wounds received in action.

**Staff of the school.**—The staff of the Indian Central Flying School will consist of:—  
1 Commandant at Rs. 1,200 per Lensem and 3 flying officers at Rs. 800 each per mensem.

British Subordinates: 1 engineer, 1 sail-maker, 2 machinists, 2 fitters, and 1 repair shop mechanic.

Indian Subordinates: 1 carpenter, 1 sail-maker, 6 fitters, 2 riggers, 2 repair shop mechanics, and 1 storekeeper.

Details of pay admissible will be published hereafter.

Commandant, Capt. S. D. Massy, 24th Punjab

Instructors—

Capt. C. G. Hoare, 39th Horse.

Lt. H. L. Reilly, 82nd Punjab.

Lt. C. L. N. Newwall, 2nd Gurkha Rifles.

## Chief Towns' of India.

The following table gives the population of the chief towns of India as shown in the census returns of 1901 and 1911. The names of towns in Native States are printed in italics. The figures include the population of cantonments and military lines. It will be noted that the figures for Calcutta include suburbs, but, to quote the Bombay census report:—"The population of Calcutta (excluding Howrah) is 896,067 and subsequent to the census Glasgow has been attempting to manipulate its boundaries so as to include a large area of suburbs. Whether the attempt be successful or not, it is certain that so long as the present census figures are current Bombay still justifies her proud boast of being the first city in India and the second in the Empire."

	1901.	1911.
Calcutta and suburbs ..	1,106,738	1,222,313
Bombay .. ..	776,006	979,445
Madras .. ..	509,346	518,660
Hyderabad .. ..	448,466	500,623
Rangoon .. ..	234,881	293,316
Lucknow .. ..	264,049	259,798

	1901.	1911.
Delhi .. ..	208,575	232,837
Lahore .. ..	202,964	228,687
Ahmedabad .. ..	185,869	215,835
Bonares .. ..	200,331	203,804
<i>Bangalore</i> .. ..	159,046	189,485
Agra .. ..	188,022	185,449
Cawnpore .. ..	197,170	178,557
Allahabad .. ..	172,032	171,697
Poona .. ..	153,320	158,656
Amritsar .. ..	182,429	152,756
Karachi .. ..	116,663	151,903
Mandalay .. ..	183,816	138,299
<i>Jaipur</i> .. ..	160,167	137,098
Patna .. ..	134,785	136,153
Madura .. ..	105,984	134,130
Barcelly .. ..	131,208	129,462
<i>Srinagar</i> .. ..	122,618	126,344
Trichinopoly .. ..	104,721	122,028
Meerut .. ..	118,129	116,227
Surat .. ..	119,306	114,863
Dacca .. ..	90,542	108,551
Nagpur .. ..	127,734	101,415
Jubbulpore .. ..	90,316	100,651

## LUNATIC ASYLUMS.

The number admitted into asylums in British India in 1911 was 1,667, the average of the five years ending 1911 being 1,577; on the first day of the year there were 5,837 already in the asylums; and the total asylum population of the year was 7,634, including 130 re-admissions. The average daily population was 5,981, of whom 4,730 were males and 1,251 females. There can be little doubt that the cases admitted into asylums represent only a small proportion of the insane population.

The religion of the lunatics admitted during the year was as follows: 168 Christians, of whom 94 were Europeans and Eurasians, 1,030 Hindus, 410 Muhammadans, 182 of other religions.

Christians, who are mainly drawn from the Indians and Eurasians of Bombay and Madras were 9.3 per cent of the whole, this ratio very largely exceeding the ratio of Christians to the total population. The explanation of this is to be found in the fact that the insane amongst Christians are usually removed to an asylum on the outbreak of an attack of insanity, but not so in the case of Hindus and Muhammadans. Only about 57.3 per cent of the admissions were Hindus, this low proportion being probably due to the fact that many harmless lunatics of that religion remain at large and are not brought to the asylums. Muhammadans who are most numerous in the

Punjab, Bombay, Eastern Bengal and Assam, and the United Provinces of Agra and Oudh contributed 22.8 per cent, a proportion which is below their ratio to the general population in the reporting provinces.

**Forms and Causes.**—The prevailing forms of insanity in the asylum population in 1911 are stated to have been mania 3,786 cases, melancholia 1,328, dementia 1,114, epileptic insanity 473, and idiocy 364.

Amongst the alleged causes of insanity no less than 875 cases are attributed to hemp-drugs (charas, ganja, and bhang); hereditary and congenital insanity accounts for 594 cases; epilepsy for 590, and alcoholism for 255 cases; while the use of opium is responsible for only 34 cases, of which 8 are ascribed to opium smoking and 26 to opium eating. To moral causes as many as 841 cases are assigned; but the classification is defective, the cause of insanity being unknown in about half the cases in the asylums and inaccurately stated in many others.

**Expenditure.**—The expenditure on the asylums, which has averaged Rs. 10.62 lakhs annually and which amounted to Rs. 11,30,750 in 1911, is defrayed for the most part by the State. Of the expenditure in 1911 for instance, Rs. 9,41,745 was borne by the State, Rs. 1,10,931 was obtained from fees, and Rs. 78,074 from other sources.

## WOMAN SUFFRAGE.

The movement in favour of woman suffrage has hitherto received little support in India. On July 29, 1913, a meeting was held at the Grand Central Hotel, Mussorie, to inaugurate an All-India Branch of the National League for Opposing Woman Suffrage. All wishing to join the All-India Branch of the National League are requested to send their names and subscriptions (one rupee per annum) to Mrs. Ellys Walton, Couper Road, Lucknow, or to the General Secretary, Miss De Gruyther, Zephyr Lodge, Mussorie. Donations will be

received and acknowledged by Mr. A. Priestly; Alliance Bank of Simla, Mussorie, who has consented to act as treasurer.

Shortly after the formation of the branch society recorded above, a meeting was held in the same hotel at Mussorie to inaugurate a branch of the National Union of Women's Suffrage Societies. Mrs. Hallows was elected president; Mrs. C. Milne, Vice-president; Miss Weatherley, Hon. Secy.; and Miss Michell, Hon. Treasurer.

## Boy Scouts.

The Boy Scouts movement, initiated in England by Lt.-Gen. Sir Robert Baden-Powell (the Chief Scout), has spread widely in India, and the Boy Scouts Association has received the patronage of the Viceroy and the heads of the local governments. The aim of the Association is to develop good citizenship among boys by forming their character—training them in habits of observation, obedience and self-reliance—inculcating loyalty and thoughtfulness for others—and teaching them services useful to the public and handicrafts useful to themselves.

The following division of duties of the Indian Headquarters is officially published for information:—*The Assistant Chief Commissioner* deals with all matters of Organisation and Discipline, including the issue of Warrants to new Local Associations and Officers, also the registration of new troops, which should be applied for on Form C. obtainable from the General Secretary. Recommendations for awards of Life Saving Medals and Certificates should be made to him and also all applications for exemption from the swimming test for 1st class (Regulation 21) and all correspondence on the subject of Challenge Trophies. Correspondence on the above subjects should be addressed to him at Fort William, Calcutta, by Local Secretaries, *always through the District and Provincial Commissioner where such exist.* *The General Secretary* (Captain T. H. Baker, Cubbon Road, Bangalore) deals with routine matters, official publications, sale of

badges, and also all matters connected with the official publication, *The Boy Scouts Gazette of India*. Local Secretaries can communicate with him direct on these matters and it is not necessary to refer to the Commissioners on such subjects.

*The Boy Scouts Gazette of India* published monthly, is the official organ of the Movement in India and in it are notified all official notices and orders issued by the Indian Headquarters. It is obtainable from the General Secretary, Subscription Rs. 1-4-0 per annum.

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## GRAIN ELEVATORS.

The question of adopting elevators for the handling of Indian grain has engaged attention for some time and has assumed increased importance in the light of the railway congestion experienced in recent years and more particularly in the grain season. In the last three years great strides have been made by other countries in the adoption or perfecting of the elevator system, and a large mass of contemporary data on the subject has been brought together by the Commercial Intelligence Department. Since the subject is one that cannot receive adequate consideration in India till the facts are before the public, these have been embodied in a pamphlet entitled *Indian Wheat and Grain Elevators*, by Mr. Frederick Noel-Paton, Director General of Commercial Intelligence to the Government of India. The work gives full particulars regarding India's production of wheat, and shows that less than one-eighth of the crop is exported. It describes the conditions under which the grain is held and the risks that run. It is pointed

out that the cultivator has no adequate means of preserving his wheat and that he is constrained to sell at harvest time; also that the prices then obtained by him are considerably lower than those usually current in later months. The constant nature of the European demand is explained and an attempt is made to gauge the probability that the enormously increased quantities of wheat to be expected when new irrigation tracts come into bearing would be accepted by Europe at one time and at a good price, or could be economically transported under a system in which a few months of congestion alternated with a longer period of stagnation. Figures are given which suggest that in practice the effect of equipping railways to do this is to intensify the evil and so to engage in a vicious circle. The author explains the structural nature of elevators and their functions as constituted in other countries. Particulars are given as to the laws that govern their operation in such countries.

## CREMATION.

Cremation as a means of disposing of the dead is commonly adopted throughout India by the Hindus, but has been little adopted among the Europeans in India. A crematorium was started some years ago in Calcutta close to the Lower Circular Road Cemetery, at a cost of Rs. 40,000. But the return for this expenditure is disappointing. Only five or six cremations take place in Calcutta each year, in spite of the fact that the fee for cremation has been fixed by the Cremation Society of Bengal at the very low figure of Rs. 30,

subject to reductions in the case of poor families. The reason for this is thought to be that, when possible Europeans go home to die, and the Native Christians and Eurasians are very largely Roman Catholics among whom a prejudice exists against this form of the disposal of the dead. In Bombay arrangements have recently been made for a small *śrāda* in the Sewri Cemetery to be held in, and for cremations to be carried on within it in the primitive style of the country, but in such a way as to preserve the ashes.

## Army Commands in India.

The following details of the organisation, distribution, and administration of the Army in India are taken from the Quarterly Indian Army List, published on October 10, 1913 :—

### THE KING-EMPEROR.

Field-Marshal, 7th May 1910.

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 Underhill, Capt. G. E. C., 62nd Punjabis, p.s.c.

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*Director of Supplies and Transport*, Williams, Brig. Gen. A. B. C., C.B., S. & T. Corps.  
*Deputy Director of Supplies*, Thomas, Col. F. H. S., S. & T. Corps.  
*Deputy Director of Transport*, Barry Lt.-Col. J. F., S. & T. Corps.  
*Deputy Assistant Director of Supplies*, Muscroft, Maj. W. S. S., S. & T. Corps.  
*Deputy Assistant Director of Transport*, Walter, Capt. E. (l) S. & T. Corps.

## REMOUNT SECTION.

*Director-General, Remount Department*, Broome, Maj.-Gen. R. C., C.I.E.  
*Personal Assistant to Director-General*, Shore, Maj. W. F., A.V.C.

## FARMS SECTION.

*Directors of Farms*, Hallows, Lt.-Col. F. W., S. & T. Corps.

## VETERINARY SECTION.

*P. V. O. in India*, Hazelton, Col. E. H. F.R.C.V.S., A.V.S.  
*Assistant P. V. O. in India*, Glasco, Capt. M. St. G., A. V. C.

## MEDICAL BRANCH.

*Director, Medical Services*, Sloggett, Surgn.-Genl. A. T., C.B., Col. G., Brit. Ser. A.T.S.  
*Deputy Director*, Hendley, Col. H. M.D., I.M.S.  
*Assistant Director, (British Service)*, Blenkinsop, Lt.-Col. A. P., R.A.M.C.  
*Assistant Director, (Indian Service)*, Granger, Maj. T. A., M.B., I.M.S.  
*Assistant Secretary*, McDonald, Asst. Surgn. J. J., I.S.M.D.

## ORDNANCE BRANCH.

*Director-General of Ordnance*, Stuart, Maj.-Gen. R. C. O., Brit. Ser.  
*Deputy Director of Equipment*, Rich, Col. H. H., Brit. Ser.  
*Deputy Director-General of Ordnance*, Jennings, Lt.-Col. H. A. K., R.A.  
*Assistant Director-General of Ordnance*, Palmer, Maj. C. C., R.A., p.s.c.

## STORES SECTION.

*Director of Ordnance Stores*, Watkins, Col. L. G., Brit. Ser.  
*Deputy Director of Ordnance Stores*, Woods, Maj. G. G., R.A.  
*Deputy Assistant Director of Ordnance Stores*, Gardner, Capt. H. W., R.A.

## MILITARY WORKS BRANCH.

*Director-General of Military Works*, Williams, Maj.-Gen. G., Brit. Ser.  
*Deputy Director-General of Military Works*, Fraser, Lt.-Col. H. A. D., R.E.  
*Assistant Director-General of Military Works*—  
 Hingston, Maj. G. B., R.E.  
 Ogilvie, Maj. D., R.E.  
*Inspector of Machinery*, Nugent, Maj. C. H. H., R.E.  
*Deputy Assistant Directors-General of Military Works*—  
 Stace, Capt. R. E., R.E.  
 Evans, Capt. W. H., R.E.  
 Hepper, Capt. A. W., R.E. (*Offg.*)

# Army Commands in India.

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## ARMY, DIVISIONAL AND BRIGADE COMMANDS.

Names, Rank and Corps.	Date of present appointment.	Date, completion tenure.	Remarks.
<b>GENERAL OFFICERS COMMANDING ARMIES—(2).</b>			
Willcocks, Lt.-Gen. Sir J., K.C.S.I., K.C.M.G., C.B., D.S.O., Brit. Ser.	6-10-10	5-10-14	Northern.
Nixon, Lt.-Gen. Sir J. E., K.C.B.	11-10-12	10-10-16	Southern.
<b>GENERAL OFFICERS COMMANDING DIVISIONS—(10).</b>			
Woon, Lt.-Gen. Sir J. B., K.C.B.	25-11-10	24-11-14	9th Secunderabad.
Scallan, Lt.-Gen. Sir R. I., K.C.B., K.C.I.E., D.S.O., A.D.C.	11-2-11	10-2-16	8th Lucknow.
Blomfield, Maj.-Gen. C. J., C.B., D.S.O., Brit. Ser.	3-3-11	2-3-15	1st Peshawar.
Pitcher, Maj.-Gen. T. D., C.B., Brit. Ser., p.s.c.	22-1-12	21-1-16	Burma.
Barrett, Lt.-Gen. Sir A. A., K.C.B., K.C.V.O.	21-2-12	20-2-16	6th Poona.
Kitson, Maj.-Gen. Sir G. C., K.C.V.O., C.B., C.M.G., Brit. Ser., p.s.c.	4-5-12	3-5-16	2nd Rawal Pindi.
Watkis, Maj.-Genl. H. B. B., C.B., p.s.c.	6-5-12	5-5-16	3rd Lahore.
Payne, Maj.-Gen. R. L., C.B., D.S.O., Brit. Ser.	30-10-12	24-5-16	5th Mhow.
Grover, Lt.-Gen. Sir M.H.S., K.C.I.E., C.B.	17-11-12	16-11-16	4th Quetta.
Anderson, Maj.-Gen. C. A., C.B., Brit. Ser.	21-8-13	20-8-17	7th Meerut.
<b>GENERAL OFFICERS COMMANDING BRIGADE—(28).</b>			
Bannatine-Allason, Maj.-Gen. R., C.B., Brit. Ser.	13-4-10	12-4-14	Nowshera.
Bell, Maj.-Gen. Sir J. A., K.C.V.O.	14-11-10	13-11-14	Aden.
Fanshawe, Brig.-Gen. H. D., C.B., Brit. Ser.	16-12-10	15-12-14	Jubbulpore.
Davison, Maj.-Gen. K. S., C.B.	5-1-11	4-1-15	Nasirabad.
Campbell, Maj.-Gen. F., C.B., D.S.O.	18-3-11	17-3-15	Kohat.
Younghusband, Maj.-Gen. Sir G. J., K.C.I.E., C.B., p.s.c.	1-6-11	31-5-15	Derajat.
Leader, Brig.-Gen. H. P., C.B., Brit. Ser.	1-6-11	31-5-15	Sialkot.
Macbean, Maj.-Gen. F., C.V.O., C.B., Brit. Ser.	6-9-11	5-9-15	Barcilly.
Cookson, Maj.-Gen. G. A., C.B.	16-10-11	15-10-15	Lucknow Cavalry.
Wilson, Maj.-Gen. A., C.B., Brit. Ser.	22-10-11	21-10-15	Lucknow Infy.
Keary, Maj.-Gen. H. D'U., C.B., D.S.O.	14-11-11	13-11-15	Gurhal.
Brunker, Maj.-Gen. J. M. S., Brit. Ser.	31-12-11	30-12-15	Sirhind.
V. C. Melliss, Maj.-Gen. C. J., C.B.	11-1-12	10-1-16	Quetta 2nd Infy.
O'Donnell, Maj.-Gen. H., C.B., D.S.O.	1-4-12	31-3-16	Bannu.
Carnegy, Maj.-Gen. P. M., C.B.	12-4-12	11-4-16	Jullunder.
Gorrings, Maj.-Gen. G. F., C.B., C.M.G., D.S.O., Brit. Ser., q.s.	1-5-12	30-4-16	Bombay.
Young, Maj.-Gen. C. F. G.	20-6-12	19-6-16	Peshawar Infy.
Pirie, Brig.-Gen. O. P. W.	1-7-12	30-6-16	Ambala Cavy.
Turner, Brig.-Gen. J. G., C.B.	17-11-12	24-8-16	Risapur Cavy.
Fry, Brig.-Gen. C. I.	7-1-13	2-9-15	Belgaum.
Shaw, Brig.-Gen. D. G. L.	23-2-13	22-2-17	Karachi.
Raitt, Maj.-Gen. H. A., C.B., Brit. Ser.	3-5-13	2-5-17	Mandalay.
May, Maj.-Gen. E. S., C.B., C.M.G., Brit. Ser.	25-5-13	24-5-17	Presidency.
Townshend, Maj.-Gen. C.V.F., C.B., D.S.O., Brit. Ser.	30-6-13	29-6-17	Jhansi.
Hamilton, Brig.-Gen. W. G., D.S.O., Brit. Ser., p.s.c.	5-9-13	2-1-17	Southern.
•••••	•••••	•••••	Secunderabad 1st Infy.
•••••	•••••	•••••	Fyzabad.
•••••	•••••	•••••	Quetta 1st Infy.
<b>COLONELS ON THE STAFF COMMANDING BRIDGES—(13).</b>			
Rodwell, Brig.-Gen. E. H., C.B., p.s.c.	23-11-10	22-11-14	Secunderabad, 2nd Infy.
Egerton, Brig.-Gen. R. G., C.B.	14-11-11	13-11-15	Perozepore.
Aitken, Brig.-Gen. A. E.	15-11-11	14-11-15	Poona.
Cox, Brig.-Gen. H. V., C.B., C.S.I.	11-1-12	10-1-16	Rawal Pindi Infy.
Dobbie, Brig.-Gen. W. H., C.B.	12-4-12	11-4-16	Ahmednagar.
Macintyre, Brig.-Gen. D. C. F., C.B.	15-4-12	14-4-16	Jhelum.
Loch, Brig.-Gen. H. F., p.s.c.	20-6-12	19-6-16	Abbottabad.
Wapshare, Brig.-Gen. R.	1-7-12	30-6-16	Bangalore.
Johnson, Brig.-Gen. G. E.	17-11-12	16-11-16	Dehra Dun.
Cowper, Brig.-Gen. M., G.I.E.	7-1-13	24-12-16	Allahabad.
Wadeson, Brig.-Gen. F. W. G.	7-1-13	6-1-17	Secunderabad Cavy.
Johnstone, Brig.-Gen. A. J.	12-4-13	11-4-17	Rangoon.
Edwards, Brig.-Gen. Fitz J. M., D.S.O., p.s.c.	29-9-13	28-9-17	Meerut Cavy.

## THE STAFF.

Names, Rank and Corps.	Date, commencement tenure.	Date, completion tenure.	Remarks.
<b>CHIEF OF THE GENERAL STAFF.</b>			
Lake, Lt.-Gen. Sir P. H. N., K.C.M.G., C.B., Brit. Ser., p.s.c.	21-2-12	20-2-16	
<b>BRIGADIER-GENERALS, GENERAL STAFF—(5).</b>			
Hamilton, Gordon, Maj.-Gen. A., C.B., Brit. Ser., p.s.c.	25-3-10	24-3-14	Dir. of Military Operations.
Braithwaite, Brig.-Gen. W. P., C.B., Brit. Ser., p.s.c.	25-1-11	20-1-15	Comdt., Staff College.
Hudson, Brig.-Gen. H., C.I.E.	1-10-12	30-9-16	Northern Army.
Money, Brig.-Gen. A. W., C.B., Brit. Ser., p.s.c.	27-11-12	26-11-16	Southern Army.
Shore, Brig.-Gen. O. B. S. F., D.S.O., p.s.c.	3-4-13	2-4-17	Dir. Staff Duties and Military Training.
<b>ATTACHED TO THE GENERAL STAFF.</b>			
Rimington, Maj.-Gen. M. F.C.V.O., C.B., Brit. Ser.	18-3-11	17-3-15	Insp. of Cavy.
Mercer, Brig.-Gen. H. F., C.B., Brit. Ser., A.D.C.	20-11-11	2-7-15	Inspector of Royal Horse and Royal Field Artilleries.
Lean, Brig.-Gen. K. E., C.B., Brit. Ser.	28-4-12	27-4-16	Insp. of Vols.
Cockburn, Brig.-Gen. W. F., Brit. Ser.	1-6-12	31-5-16	Inspector of Royal Garrison Artillery.
More, Capt. J. C., 51st Sikhs	8-9-10	7-9-14	Translation Officer.
<b>ADJUTANT-GENERAL.</b>			
V.C. Aylmer, Maj.-Gen. F. J., C.B., Brit. Ser.	25-3-12	24-3-16	
<b>DEPUTY ADJUTANT GENERAL—(1).</b>			
Walter, Brig.-Gen. J. MacN., D.S.O., Brit. Ser., p.s.c.	5-9-13	4-9-17	
<b>ASSISTANT ADJUTANT-GENERALS—(2).</b>			
Delamain, Col. W. S., D.S.O.	17-11-12	16-11-16	
O'Leary, Col. W. E., Brit. Ser., p.s.c.	....	....	Army Hdqrs.

## NORTHERN ARMY.

## Headquarters, Murree.

*General Officer Commanding*, Willecks, Lieut.-Gen. Sir J., K.C.S.I., K.C.M.G., C.B., D.S.O., Brit. Ser.  
*A. M. S. and A. D. C.*, Tomkins, Maj. H. L., D.S.O., 28th Punjabis.  
*A. D. C.*, Willecks, 2nd Lt. J. L., R. Highrs.  
*A. D. C.*, Khwaja Muhammad Khan, Isalidar Bahadur, Guides.

## GENERAL STAFF.

*Brig.-Genl.*, Hudson, Brig.-Genl. H., C.I.E.,  
 Malleson, Col. W., C.I.E., (Offg.).  
*Genl. Staff Offr., 2nd gr.*, Vincent, Maj. B., 6th (Innis.) Dgns., p.s.c.  
*D.F.A.-G.*, Beatson-Bell, Maj. J.  
*Insp. of Army Schools—*  
 Somers, Insp. of Army Schools, W. V. (Hony. Lt.), 2nd Circle, Kasauli.  
 Spiegelhalter, Insp. of Army Schools, L. (Hony. Lt.), 3rd Circle, Naini Ta.  
 Stevens, Insp. of Army Schools, H. G.R. (Hony. Lt.), 1st Circle, Murree.  
 Connell, Insp. of Army Schools, E. S. (Hony. Lt.), 5th Circle, Darjeeling.  
*Insp. of Physical Training*, Urquhart, Capt. E. F. M., R. Highrs.

## 1st (Peshawar) DIVISION—(Headquarters, Peshawar).

*Commander*, Blomfield, Maj.-Genl. C.J., C.B., D.S.O., Brit. Ser.  
*A.-D.-C.*, Wilson, Lt. H. M., 24th Punjabis.  
*Comdg. R. A.*, Stokes, Brig.-Genl. A., D.S.O., Brit. Ser.

## GENERAL STAFF.

*Gen. Staff Offr., 1st gr.*  
 Malleson, Col. W., C.I.E.  
 Rice, Lt.-Col. G. B. H., 31st Punjabis, p.s.c. (Offg.).  
*Gen. Staff Offr., 2nd gr.*  
 Wilkinson, Maj. H. B. Des V., Durh. L. I., p.s.c.  
 Rudkin, Maj. W. C. E., D.S.O., R.F.A., (Offg.).

ADMINISTRATIVE, TECHNICAL, AND DEPARTMENTAL STAFF.

*D.A.A.-G.*, Bradshaw, Maj. C.R., 9th G.R., p.s.c.  
*A. Q. M.-G.*, Tidswell, Col. E. C., D.S.O., Brit. Ser.  
*Comdg. R. E.*, Dundee, Col. W. J. D., C.I.E., Brit. Ser.  
*Asst. Dir. of Ord. Stores*, Smallwood, Maj. F.G., C.V.O., R.A.  
*Asst. Dir. of Supplies*, Rynd, Lt.-Col. F. C. S., and T. Corps.  
*Asst. Dir. of Tpt.*, Corbyn, Capt. M. Mco. L., S. and T. Corps.  
*Asst. Dir. of Grass Farms*, \*  
*Asst. Dir. Medl. Services*, Firth, Col. R. H., Brit. Ser., V.H.S.  
*Depty. Asst. Dir. Medl. Services (Sany.)*, Houston, Capt. J. W., M.B., R.A.M.C.  
*Depty. Asst. Dir. Medl. Services (Mobn)*, Melville, Maj. C. W. F., M.B., F.R.C.S.E., I.M.S.

CHITRAL AND DROSH.

*Comdg.* .. .. . \* .. .. . Sec., 25th Mtn. Batty.  
*S. O. (3rd cl.)* .. .. . \* .. .. . 1 Sec., No. 11 Co., 2nd S. & M.  
*Offr. in charge Supplies and Tpt.* Hewett, Cpt. M.S., S.&T. Corps .. 2nd Bn., 1st G. R.  
*Garrn. Engr.* .. .. . Hamilton, Lt. R., R.E. .. ..

MALAKAND (Including Chakdara and Dargai).

*Comdg. (1st cl.)* .. .. . Seddon, Lt.-Col. T. Y., 19th Pun. Det., Fron. Garm. Arty.  
*S. O. (3rd cl.)* .. .. . Greenaway, Capt. H., 69th Pun. 69th Punjabis.  
*Garrn. Engr.* .. .. . Deed, Lt. L. C. B., R.E. .. ..

CHAKDARA.

Det. Fron. Garm. Arty.  
 Wing, 19th Punjabis.

DARGAI.

(*S. O. 3rd cl.*) .. .. . Condr, Lt. P., 19th Punjabis .. Hdqrs., 19th Punjabis.

1st PESHAWAR (INFANTRY) BRIGADE—(Headquarters, Peshawar).

*Bde.-Comdr.*, Young, Maj.-Gen. C. F. G.

*Bde.-Majors*—

Keen, Maj. F. S., 45th Sikh, p.s.c.  
 Mackenzie, Capt. H. J., 51st Sikhs (Offg.).

*A. C. R. E.*, Campbell, Lt.-Col. G. P., R.E.

*Offr. in charge Supplies*, Markwick, Lt. H. W., S. and T. Corps.

PESHAWAR.

*S. O. (1st cl.)* .. .. . Compton, Capt. C. W. McG. 69th Punjabis. { Det. P. L. Horse, 1st Lancers.  
*Garrn. Engr.* .. .. . Palmer, Capt. C.H., R. E. 86 (Heavy) B., R.G.A., 1 Co.  
*Cant. Magte.* .. .. . Carwithen, Maj. E.T. .. Punjab Vol. Rif., 1st Det. Fron.  
 Garm. Arty., 1st Bn., Suss. R.,  
 2nd R. W. Kent R., No. 3 Co.,  
 1st S. and M.; 14th Sikhs, 21st  
 Punjabis; 51st Sikhs, and 6th  
 Mule Corps, 16th Mule Cadre.  
 1st and 2nd Half Troops, S. T.  
 Bullocks.  
 No. 1 co., A.H.C., 1 Co., A.B.C.

ABAZAI.

*Comdg.* .. .. . Hammond, 2nd Lt. A.V., Guides Det., Guides.

CHERAT.

*Comdg.*  
*S. O.* ..

JAMRUD.

*Comdg.* .. .. . Palmer, Capt. J. H. G., 21st Det., Fron. Garm. Arty.  
 Punjabis.  
 Det., 21st Punjabis.



## SHABKADAR.

*Comdg.* .. .. . Mouillot, Capt. A. de T., 51st Det., 51st Sikhs.  
Sikhs.

## NOWSHERA BRIGADE—(Headquarters, Nowshera).

*Bde.-Comdr.*, Bannatinc-Allason, Maj.-Gen. R., C.B., Brit. Ser.  
.. .. . Pritchard, Lt.-Col. H. E., 82nd Punjabis (Offg.).  
*Bde.-Maj.* .. .. . Twiss, Capt. W. L.O., 9th G.R., p.s.c.  
A. C. R. E., Dumsterville, Lt.-Col. E. L., R.E.  
*Offr. in charge Tpt.*, Mayo, Capt. G. L. L., S. and T. Corps.  
*Offr. in charge Supplies*, Hext, Capt. J.E., S. and T. Corps.

## NOWSHERA.

<i>S. O. (2nd cl.)</i> .. .. . Stoney, Lt. H. H., N. Staff R.	{ XVI. Brig. { 89 Batt. } R.F.A. { 90 Batt. } 1 Ammn. { 91 Batt. } Col. R.F.A., 22rd Mtn. Batty. 1st Durh. L. I. Det., 1st P.V.R. 38th Dogras; 46th Punjabis. 82nd Punjabis, 112th Infantry. 7th Mule Corps, 3rd Half Troop, A. T. Bullocks.
<i>Garrn. Engr.</i> .. .. *	
<i>Cant. Magte.</i> .. .. . Burn, Maj. G.C. .. ..	

RISALPUR (CAVALRY) BRIGADE—(Headquarters, Risalpur.) (Includes the Cavalry regiment at Peshawar for training).

*Bde.-Comdr.*, Turner, Brig.-Genl. J. G., C.B.  
*Bde.-Maj.*, Moir, Capt. J. E., 10th Lancers, p.s.c.

## RISALPUR.

*Garrn. Engr.* .. .. . Lubbock, Maj. G., R.E. .. .. 13th Lancers, 14th Lancers.  
For training. 1st Lancers.

## MARDEN.

*Comdg.* .. .. . Davies, Lt.-Col. F.G.H., Guides Guides.  
*S. O., 3rd cl. and Cant. Magte.* Blacker, Lt. L. V. S., Guides.

## 2nd (Rawal Pindi) DIVISION.—(Headquarters, Rawal Pindi).

*Commander*, Kitson, Maj.-Gen. Sir G. C., K.C.V.O., C.B., C.M.G., Brit. Ser., p.s.c.

*A.-D.-C.*, Poe, Capt. C. V. L., K. R. Rif. C.

*Comdg. R. A.*, Smith, Brig.-Gen. G. B., Brit. Ser.

*General Staff.*

*Gen. Staff Offr., 1st gr.*, Campbell, Col. A.A.E.

*Gen. Staff Offr., 2nd gr.*, Austin, Rt. Lt.-Col. H. H., C.M.G., D.S.O., R.E., p.s.c.

*Gen. Staff Offr., 2nd gr.*, O'Dowda, Maj. J. W. R., Kent R., p.s.c.

*Administrative, Technical and Departmental Staff—*

D. A. A. G., Abbott, Capt. L. H. 11th Rajputs, p.s.c.

A. Q. M. G., Lecky, Col. R. St. C., Brit. Ser.

*Comdg. R. E.*, Speranza, Lt.-Col. W. S., R.E. (Offg.).

*Asst. Dir. of Ordnance Stores*, Smallwood, Maj. F. G., C.V.O., R.A. (f).

*Asst. Dir. of Supplies*, Hilliard, Lt.-Col. H. N. S. and T. Corps.

*Asst. Dir. of Tpt.*, Codrington, Maj. H. de B., S. and T. Corps.

*Asst. Dir. of Grass Farms*, Kirkwood, Capt. A. S.

*Depy. Dir. Medl. Services*, Grainger, Col. T., C.B., M.D., I.M.S., (Offg.).

*Depy. Asst. Dir. Medl. Services (Sany.)*, V. C. Nickerson, Maj. W. H. S., M.B., R.A.M.C.

*Depy. Asst. Dir. Medl. Services (Mobn.)*, Thom, Maj. G., St. C., M.B., R.A.M.C.

## RAWAL PINDI INFANTRY BRIGADES—(Headquarters, Rawal Pindi).

*Bde. Comdr.*

Cox, Brig.-Gen. H. V., C.B., C.S.I., (Col. on Staff) (On special duty, A. Hdqrs.);

Heneker, Col. W. C. G., D.S.O., N. Staff, R., A.-D.-C. (Offg.).

*Bde.-Maj.—*

Catty, Capt. T. C., 89th Punjabis, p.s.c.

Pratt, Maj. H. R. E., D.S.O., 85th Sikhs (Offg.).

RAWAL PINDI.

<i>A. C. R. E.</i> , Rolland, Maj. A., R.E. (Offg.).aj.		
<i>Offr. in charge Supplies</i> .. Amesbury, M. W. L. R., S. & T. Corps.		21st Lancers, De. Punjab L. Horse. 5th Cavalry.
<i>Offr. in charge Tpt.</i> .. Brown, Capt. W., S. & T. Corps.		XII Bde., R.H.A., "V" Batt.
		VII Bde., R.F.A., { 38 Batt.
		2 Ammn. Col. R. F. A. { 78 Batt.
		II Brit. Mtn. Arty. { 1 Batt.
		Bde. attchd. { 9 Batt.
		6 Batt.
<i>S. O. (1st cl.)</i> .. .. Whitaker, Capt. C. L. D. H., 18th Infantry.		No. 94 Co. R. G. A. Det. 1st Pun. Vol. Rif.
<i>Garr. Engr.</i> , .. .. Elliot, Maj. C.A., R.E. ..		Det. N. W. Ry. Vol. Rif.
<i>Cant. Magte.</i> .. .. Browning, Maj. T. C. ..		No. 4 Co., 1st S. and M.; No. 11 Co., 2nd S. and M.; 31 Divl. Signal Coy., 35th Sikhs; 84th Punjabis; 8th Mule Corps; 17th 18th, 19th, 20th, 29th Mule Cadres, 51st Camel Corps; 4th, 5th, 6th, 7th and 8th Half Troops, S. T. Bullocks; 9th Half Troop, A. T. Bullocks; No. 2 Co., A. H. C. 2 Co., A. B. C.

ATTOCK.

<i>Comdg.</i> .. .. *		
<i>S. O. (3rd cl.) and Cant. Magte.</i> .. .. Gardiner, Lt. D.A., R.G.A.,		Det. S. T. Bullocks.

CAMPBELLPORE.

<i>Comdg.</i> .. .. *		
<i>S. O. (3rd cl.) and Cant. Magte.</i> .. .. Payne, Lt. D. W., R. G. A.		"A" Ammn. Col., R. H. A.
		VII Bde., R. F. A., 4 Batt.; No. 104 (Heavy) B., R. G. A.
		50th Camel Corps. Det. S. T. Bullocks.

MURREE (SANITARIUM.)

<i>Comdg.</i> .. .. Kelle, Maj. A. H., R.G.A. ..		
<i>S. O. (3rd cl.)</i> .. .. Bridgeman, Lt. R. O. Rif. Brig.		
<i>Garr. Engr.</i> .. .. Noble, Capt. W. J. W., R. E.		
		Barian, No. 68 Coy. R. G. A. Details R. G. A., 1st York R. Lower Topa.
		Kuldana, 2nd Rif. Brig., Gharial 4th K. R. Rif. C.
		Upper Topa, 2nd N. Staff R., Lower Gharial Wing, 2nd L'pool R.

JHELUM BRIGADE—(Headquarters, *Jhelum*).

<i>Bde. Comdr.</i> , MacIntyre, Brig.-Gen. D. C. F., C.B. (Col. on Staff).	
<i>Bde.-Maj.</i> —	
Calvert, Maj. R. T. C., 120th Infantry, p.s.c.	
Herdon, Maj. H. E., 55th Rifles, p.s.c. (Offg).	
<i>Offr. in charge Tpt.</i> , Davis, Maj. G. H., S. and T. Corps.	

JHELUM.

<i>S. O. (3rd cl.)</i> .. .. Whitchurch, Capt. J. S., 21st Cavy.		21st Cavalry.
<i>Cant. Magte.</i> .. .. Biscoe, Capt. J. V. M., 112th Infantry.		20th Infantry, 37th Dogras, 76th Punjabis, 87th Punjabis.
		34th M. Cadre; 52nd Camel Corps.
<i>MOA</i> .. .. A. R. Depot.		53rd Camel Corps, A. R. Depot.

ABBOTTABAD BRIGADE—(Headquarters, *Abbottabad*).

<i>Bde. Comdr.</i> , Loeb, Brig.-Gen. H. F., p.s.c. (Col. on Staff).	
<i>Bde.-Maj.</i> , Loveday, Capt. F. W., B. A., p.s.c.	
<i>Asst. Div., Med., Services</i> , Kirkpatrick, Col. R., C.M.G., M.D., Brit. Ser. (also A.D.M.S., <i>Shallot</i> Bde.).	
<i>A. C. R. E.</i> Kelsall, Maj. H. W., (Offg.).	

## ABBOTTABAD.

S. O. (3rd cl.)	..	..	Cornish, Capt. A. W. D., 6th G. R.	{ I. Ind. Mtn. } 27 Batt.
Cant. Magte.	..	..	..	{ Arty. Bde. } 30 Batt.
				{ V. Ind. Mtn. } 25 Batt.
				{ Arty. Bde. } 29 Batt.
				{ 5th G. R., 1st Bn. 6th G. R. } 25 Batt.
				{ 2nd Bn. 6th G. R. (en route from Chitral). }
BARA GALI	..	..	4	KALABAGH .. *
GHORA DAKA	..	..	*	KHANSPUR .. *

## KHYRA GALI \*

SIALKOT BRIGADE—(Headquarters, *Sialkot*). (Includes the Cavalry at Jhelum and Rawal Pindi for training.)

*Bde. Comdr.*, Leader, Brig.-Gen. H.P., C.B., Brit. Ser.  
*Bde. Maj.*, Rivett-Carnac, Maj. J. S., 14th Lancers, p.s.c.  
*Offr. in charge Tpt.*, Logan, Maj. L. S., S. and T. Corps.  
*Offr. in charge Supplies*, Rennison, Capt. A. J., S. and T. Corps.  
*Asst. Dir., Medl. Services*, Kirkpatrick, Col. R., C.M.G., M.D., Brit. Ser.

## SIALKOT.

S. O. (1st cl.)	..	..	Jackson, Capt. F. A., 21st Cavalry.	{ 17th Lancers; 6th Cavalry; 19th Lancers; XII Bde., R.H.A., "W." Batt. }
				{ "B" Ammn. Col. R.H.A., No. 25 Ry. Co., Det. 1st York Lt. 34th Pioneers. }
Cant. Magte.	..	..	Reid, Capt. W.D., 81st Pionrs.	{ 32nd Mule Corps; No. 10 Hr Troop, A. T. Bullocks, 59th, 60th, 61st, 62nd Grantee Camel Corps. }
			LYALLPORE .. ..	

3rd (LAHORE) DIVISION—(Headquarters, *Lahore Cantonment*).

*Commander*, Watkis, Maj.-Genl. H.B.B., C.B., p.s.c.  
*A.D.-C.*, Carey, Capt. P. G., 31st Punjabis.  
*Comdg. R. A.*, Johnson, Brig.-Gen. F. E., D.S.O., Brit. Ser.

## GENERAL STAFF—

*Gen. Staff Offr., 1st gr.*, O'Leary, Col. T. E., Brit. Ser.  
*Gen. Staff Offr., 2nd gr.*, King, Maj. S. W., 5th Light Infantry, p.s.c.  
*Gen. Staff Offr., 2nd gr.*, Mathew-Jannowe, Bt.-Maj. E. B., The Queens, p.s.c.

Forbes, Capt. L., 57th Rifles (*Offg.*).

## ADMINISTRATIVE TECHNICAL AND DEPARTMENTAL STAFF—

*D. A. A.-G.*, Lukin, Maj. R. C. W., 9th Horse.  
*A. Q. M. G.*, Hodson, Col. G. B., C.B., D.S.O.  
*Comdg. R. E.*, Laurence, Lt.-Col. R. T.R., R. E., (*Offg.*)  
*Asst. Dir. of Ordnance Stores*, Bowen, Maj. H. W., R.A.  
*Asst. Dir. of Supplies*, Cripps, Col. A. W., S. and T. Corps.  
*Asst. Dir. of Tpt.*, ..  
*Asst. Dir. of Grass Farms*, Marriott, Capt. A. S.  
*Asst. Dir., Medl. Services*, Roe, Col. R. B., I.M.S. (*Offg.*).  
*Depy. Asst. Dir., Medl. Services (Sany.)*, Tate, Capt. R. G. H., R.A.M.C.  
*Depy. Asst. Dir., Medl. Services (Mobn.)*, Whitestone, Lt.-Col. C. W. H., M.B., R.A.M.C.  
*Supdt. of physical Training (Nor. Army)*, Wallace, Lt. R. E. Yorks R.

## LAHORE CANTONMENT.

S. O. (2nd cl.)	..	..	Officer, Lt. W. G., W. Rid. R.	{ Punjab L. Horse; 37th Lancers, Ammn. Col. R.H.A. }
Offr. in charge Supplies	..	..	Byers, Maj. C. B. ..	{ XXXV Bde. R. E. A. } 12 Batt.
Cant. Magte.	..	..	Reynolds, Capt. H. V., 82nd Punjabis ( <i>Offg.</i> ).	{ 25 Batt. }
Garn. Engr.	..	..	Nation, Lt. C. F., R.E.	{ 3 Ammn. Col., R. F. A., Wing, 2nd L'pool. R., 1st P.V.R. 28th Punjabis, 32nd Pioneers. }
				{ N. W. Ry. Vol. Rifles. }
				{ 3rd, 4th, 21st, 22nd Mule Cadre, 54th Camel Corps, 13th and 15th Half-Troops, A. T. Bullocks No. 3 Co., A. H. C. Nq. 3 Co. A. B. Co. }
				{ Det. 2nd L'pool. R. Supply Res. Depot. }
				{ 55th, 56th Camel Corps. }
			FORT LAHORE .. ..	
			MONTGOMERY .. ..	

MULTAN.

<i>Comdg. (1st cl.)</i>	.. Selwyn, Lt.-Col. C. H., 28th Cavalry, p.s.c.	28th Lt. Cavalry. III Bde., R.F.A., 62 Batt. 90 (Heavy) Bty., R. G. A.
<i>S. O. (1st cl.)</i>	.. ..	1st Lanc. Fus.
<i>Cant. Magte.</i>	.. Woodward, Capt. C. P., 41st Dogras.	Depot 25th Punjabis 130th Baluchis. 57th Camel Corps. Det., A. T. Bullocks.

JULLUNDUR BRIGADE—(Headquarters, Jullundur.).

*Bde. Comdr.*, Carnegie, Maj. Gen. P.M., C.B.

*Bde.-Maj.*, Hill, Maj. H., M.V.O., R. W. Fus., p.s.c. LV., ex. I., to 27 Oct. 13.

*Staff Capt.*, Alexander, Capt. R. G., 11th Lancers. (*Offg. Bde.-Maj.*)

Shepherd, Capt. C. I., 53rd Sikhs (*Offg.*).

A. C. R. E., Leslie, Maj. G.A. J., R. E.

*Offr. in charge Supplies*, Newell, Maj. H. A., S. and T. Corps.

*Asst. Dir., Medl. Services*, Fooks, Lt.-Col. H., I.M.S. (*Offg.*) (also A. D. M. S., Sirhind Bde.).

JULLUNDUR.

<i>S. O. (2nd cl.)</i>	.. Boutflower, Lt. E. C., W. Rid.	15th Lancers.
<i>Cant. Magte.</i>	.. .. R.	III Bde., R.F.A., 18 Batt.
<i>Garr. Enbr.</i>	.. Cowie, Lt.-Col. W. A. L., Supy List.	Wing, 1st Manch. R. Det., N. W. R. Vol. 47th Sikhs. No. 14 Half-Troop, A. T. Bullocks. 36th Mule Cadre.

AMRITSAR.

* <i>Comdg.</i>	.. Walker, Maj. E. J. H., Manch.	Det., 1st Manch. R.
<i>S. O. (3rd cl.)</i>	.. Davidson, Lt. R. I. M., Manch.	Det., 47th Sikhs.
	.. .. R.	Det., A. T. Bullocks.

BAKLOH.

<i>Comdg.</i>	.. V.C. Walker, Col. W. G., 4th G. R.	4th G.R.
<i>S. O. (3rd cl.)</i>	.. Farwell, Lt. W. L., 4th G. R. DALHOUSIE (Sanitarium).	
<i>S. O. (1st cl.)</i>	.. McLeod, Capt. G.C.S., R. Highrs.	Hdqr. Wing, 1st Manch. R.
<i>Garrn. Engr.</i>		Det., 1st Lanc. Fus.

DHARMSALA.

<i>Comdg.</i>	.. Home, Lt.-Col. J. M., 1st G.R. p.s.c.	1st Bn. 1st Gurkha Rifles. Depot
<i>S. O. (3rd cl.)</i>	.. Giffard, Capt. C. H., 1st G. R.	2nd Bn., 1st Gurkha Rifles.

SIRHIND BRIGADE—(Headquarters. Ambala).

*Bde. Comdr.*, Brunker, Maj.-Gen. J. M. S., Brit. Ser.

*Bde.-Maj.*, Ridgeway, Capt. D. G., 3rd G. R., p.s.c.

*Asst. C. R. E., Comm.*, Lt.-Col. C., R.E., p.s.c.

*Offr. in charge Supplies*, Mason, Maj. J. A. P., S. and T. Corps.

*Offr. in charge T. L.*, Timbrell, Capt. T., S. and T. Corps.

*Asst. Dir., Medl. Services*, Fooks, Lt.-Col. H., I.M.S., (*Offg.*) (also A.D.M.S., Jullundur Bde.).



7TH MEERUT DIVISION—(Headquarters, *Meerut*)

Commander, Anderson, Maj.-Genl. C. A., C.B., Brit. Ser.

A.-D.-C., Brock, Capt. B. de L., 126 Infantry.

Comdg. R. A., Robinson, Brig.-Gen., C. T., Brit. Ser.

GENERAL STAFF—

Gen. Staff Offr., 1st gr., Jacob, Col. C. W.

Gen. Staff Offr., 2nd gr., Davies, Maj. W. P. L., R. A., p.s.c.

ADMINISTRATIVE, TECHNICAL AND DEPARTMENTAL STAFF—

D. A. A.-G., Robinson, Maj. S. W., R. G. A.,

Hewett, Capt. H. W. O'C., 41st Dogras (*Offy.*).

A. Q. M. G., Lindesay, Col. A. J.

Comdg. R. E., Thackwell, Col. O. M. R., Brit. Ser.

Asst. Dir. of Ord. Stores, Bowen, Maj. H. W., R. A.

Asst. Dir. of Supplies, Vaughan, Maj. E. G., p.s.o., S. and T. Corps (*Offy.*).

Asst. Dir. of Tpt., Lindsay, Lt.-Col. H. A. P., S. and T. Corps.

Asst. Dir. of Grass Farms, Mellor, Capt. G. F.

Asst. Dir. Medl. Services, Treheime, Col. F. H. F.R.C.S.E., Brit. Ser.

Deputy Asst. Dir., Medl. Services (*Sany*), Cunningham, Maj. R. A., M.B., R.A.M.C.

Deputy Asst. Dir., Medl. Services (*Mobn.*), Tate, Maj. G., I.M.S., (*Offy.* Surgeon to C-in-C).

Boulton, Maj. H. M.B., I. M. S., (*Offy.*).

DELHI.

Comdg. (1st cl.)	..	.. Cole, Lt.-Col. E. H., 11th Lancers.	} Det. Punj. L.H. Det., 74 Co., R. G. A.; Det. 3rd Bn. R. Fus. Det., 1 Pun. Rif.; Det. E. I. Ry. V. Rif.; 11th (K. E. O.) Lancers; 33rd Punjabls. 30th Half Troop, A. T. Bullocks.
S. O. (3rd cl.) and Cant. Magte.	..	.. Broughton, Lt. G., 33rd Punjabls.	
A. G. R. E.	..	.. Griffith, Maj. G. H., R.E. ( <i>Offy.</i> ).	
Garrn. Engr.	..	.. Kealy, Capt. P. H., R. E.	

FATEHGARH.

Comdg.	..	} Macavish, Capt. A., 3rd Brahmans.	} Det., U. P. Horse (N. Regt.). Det. B. B. and C. I. Vol. Rifles. Depots, 3rd Brahmans, 4th Rjpts.
S. O. (3rd cl.) and Cant. Magte.	..		

MUTTRA.

Comdg.	..	.. Haig, Lt.-Col. N. W., 6th Dragoons.	} 6th Dragoons. No. 7th Co., A. H. G. 38th Half Troop A. T. Bullocks.
S. O. (3rd cl.) and Cant. Magte.	..	.. Beale, Hy. Lt. G.H., 6th Dragoons.	

AGRA.

Comdg. (1st cl.)	..	..Vandeleur, Bt. Lt.-Col. R. S., Sea Highrs.	Det. U. P. Horse (N. Regt.).
S. O. (3rd cl.)	..	..Anderson, 2nd-Lt. K. A. N., Sea. Highrs.	VI (Howr.) Bde., R.F.A., 77. Batt.
Garrn. Engr.	..	..Kitchen, Lt. E. G. R. E.	{No. 74 Co., R.G.A. 1st Sea. Highrs., Det. G. I. P. Ry. Vol. Rif.; Agra V. Rifles 13th Rajputs. 37th Half Troop. A. T. Bullocks.
Cant. Magte.	..	..Paterson, Capt. H. F. W., 32nd Pioneers.	

Det. U. P. Horse (N. Regt.) ETAWAH .. Det. E. I. R. Vol. Rifles.

ALIGARH

Det. Muss. Vol. Rifles

MEERUT (CAVALRY) BRIGADE—(headquarters, *Meerut*). (Includes the Cavalry at Muttra, Delhi, Bareilly and Dehra Dun for training).

<i>Bde. Comdr.</i> ..	Edwards, Brig.-Gen. Fitz. J.M., D.S.O., p.s.c. (Col. on Staff).	} 6th Dragoons; 13th Hussars; U. P. Horse (N. Regt.); 3rd Skin- ner's Horse; 18th Lancers; 11th K. E. O. Lancers; 17th Cavalry X. Bde., R. H. A. { P. Batt. } F. R. Batt. } Ammn. Col. R.H.A.
<i>Bde. Mag.</i> ..	Muspatt, Capt. V. E., 30th Lancers, p.s.c.	

A. C. R. E. .. Campbell, Maj. H. B. D., R.E. —

Offr. in charge Supplies .. Cutbill, Capt. R.H.L., A. S. C. —

## Army Commands in India.

## MEERUT.

<i>S. O. (1st cl.)</i> .. ..	.. Dodd, Capt. A.H.R., 17 Cavalry.	Det. U. P. Horse (N. Regt.).
<i>Garrn. Engr.</i> .. ..	.. Archbold, Capt. F.H.W., R.E.	V. Bde., R.F.A. { 63 Batt.
<i>Cant. M'agte.</i> .. ..	.. Field, Lt.-Col. C. W. ..	7 Ammun. Col.; R.F.A.; 3rd Bn. R. Fus., 3rd Bn. K.R. Rif. Corps. Det., Muss. V. Rif. 128th Pioneers; 10th Mule Corps. 31st, 32nd 33rd Half Troops, S. T. Bullocks. 35th 36th, Half Troops, A. T. Bullocks; No. 7 Co., A. H. C. No. 7 Co., A. B. H. Det. E. I. R. Vols.

## GHAZIABAD .. ..

## BAREILLY BRIGADE—(Headquarters, Bareilly).

*Bde. Comdr.*, Macbean, Maj.-Genl. F., C.V.O., C.B., Brit. Ser.  
*Bde.-Maj.*, Glasgow, Maj. A.E., R. Huss. R.  
*Staff Captain*, Hamer, Capt. M. A., 129th Baluchis, p.s.c.  
*Asst. C. R. E.*, Kirby, Lt.-Col. N., R.E.  
*Offr. in charge, Supplies*, Fox, Maj. L. W., S. and T. Corps.  
*Officer in charge, Tpt.*, Hogan, Capt. E. M. A., S. and T. Corps.  
*Asst. Dir. Medl. Services*, Barret, Col. H. J., Brit. Ser.

## BAREILLY.

<i>S. O. (2nd cl.)</i> .. ..	.. MacLaran, Capt. F. N., 9th G. R.	17th Cavalry, V. Bde. R.F.A., 73 Batt. 4th Worc. R.; 41st R.; 41st Dogras, 39th Half Troop, S. T. Bullocks; 2 Half Troops A. T. Bullocks, 11th Mule Corps, Depot. 39th Mule Cadre.
<i>Garrn. Engr.</i> .. ..	.. Greer, Maj. R.E., R.E., ..	
<i>Cant. M'agte.</i> .. ..	.. Knowles, Capt. J. K. ..	

## ALMORA.

<i>Comdg.</i> .. ..	.. Hickley, Lt.-Col. A.C., 3rd G. R.	
<i>S. O. (3rd cl.) and Cant. M'agte.</i> .. ..	.. Loch, Capt. J.C., 3rd G. R.	1-3rd G. R.

## NAINI TAL (Sanitarium).

<i>Comdt.</i> .. ..		
<i>S. O. (1st cl.) and Cant. M'agte.</i> .. ..	Haseldine, Capt. R. H. L'pool R.	Naini Tal Vol. Rif. Det. 11th Mule Corps.

## RANIKHET.

<i>Comdg.</i> .. ..	.. Paul, Maj. J. R. A. H., Liec. R.	Details.
<i>S. O. (3rd cl.)</i> .. ..	.. Meredith, Lt. J. V. Leins R.	Det., A. T. Bullocks
<i>Garrn. Engr.</i> .. ..	.. Farley, Lt. E. L., R.E. ..	
<i>Offr. in charge, Supplies,</i> .. ..	.. Fox, Maj. L. W., S. and T. Corps.	
<i>Cant. M'agte.</i> .. ..	.. Waller, Lt.-Col. E., Supy. List	

## SHAHJAHANPUR.

<i>S. O. (3rd cl.) and Cant. M'agte.</i> .. ..	Williams, Lt. S. C., Leic. R.	Det., U. P. Horse, (N. Regt.). Det., Naini Tal Vol. Rif.
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## CHAUBUTTIA—1st Leins R.

## MORADABAD—Det., U. P. Horse (N. Regt.).

## DEHRA DUN BRIGADE—(Headquarters, Dehra Dun).

*Bde.-Comdr.*, Johnson, Brig. Gen. C. E., Col. on Staff.  
*Bde.-Maj.*, Walker, Maj. H. A., R. Fus., p.s.c.  
*Asst. C. R. E.*, Swiney, Lt.-Col. A. J. H., R. E.  
*Offr. in charge, Supplies, and Tpt.*, Forteach, Maj. F. H. W., S. and T. Corps.  
*Asst. Dir., Medl. Services*, Barratt, Col. H. J., Brit. Ser. (also A. D. M. S. Bareilly and Garhwal Bdes.).

## DEHRA DUN.

<i>S. O. (3rd cl.)</i> .. ..	.. Walton, Lt. R. C., 2nd G.R.	U. P. Horse, (N. Regt.).
<i>Garrn. Engr.</i> .. ..	.. Gaskell, Capt. H.S., R.E.	G. G.'s Body Guard.
<i>Cant. M'agte.</i> .. ..	.. Leslie, Lt.-Col. W. C. C., Supy. List.	VII. Ind. Mtn. } 21 Batt. Arty. Bde. } 26 Batt. 2nd K.E.O. Gurkha Rif. 9th G.R.

LANDOUR (Sanitarium).

Comdt.			
S. O. (1st cl.) ..	}	Taylor, Capt. G.A., Leins. R.	} Details.
		CHAKRATA.	
Comdg.	..	..	
S. O. (1st cl.) ..	..	Nicholson, Capt. E.H.R., Fus.	
Garrn. Engr. ..	..	Tomlinson, Capt. H. W., R.E.	
Cant. Asst. ..	..	Prince, Maj. W.C.S., Supy.	
		1st.	

} Det. 3rd K. R. Rif. C.

KAILANA.

Comdt.	..	..	..	—
Adjlt.	..	..	..	—
		MUSSOORIE—		Mussoorie Vol. Rifles

GARHWAL BRIDGE—(Headquarters, Rurki) (tempy.)

Bde.-Comdr., Keary, Maj.-Genl. H.D.U., C.B., D.S.O.  
Clay, Lt.-Col. C. H., 8th G. R., p.s.c. (O. H. G.)

Bde.-Maj. Young, Capt. A. 1st G. R., p.s.c.  
Nelson, Capt. C., 3rd Brahmins, (Offy.).

Asst. C. R. E., Swinley, Lt.-Col. A. J. H., R.E.  
Offr. in charge, Supplies and Tpt., Forreath, Maj. F. W. H., S. and T. Corps.  
Asst. Dir. Medl. Services, Barratt, Col. H. J., Brit. Ser.

LANSDOWNE.

Comdg.				
S. O. (3rd cl.) Cant. Magte.	..	Reed, Capt. H.R.B., 39th Garhwal.		39th Garhwal R f., 2nd Bn., 3rd G. R. 2nd Bn., 8th G. R.
		RURKI.		
Comdg.	..	..	Twining, Lt. Col. P.G., M.V.O., R. E.	Nos. 59, 73 (en route) from Rawal Pindi, 81 Cos., R.G.A.
S. O. (2nd cl.) and Cant. Magte.	..	Nelson, Capt. C., 3rd Brahmins (Offy. Bde.-Maj.)		No. 91 (Heavy) Bty., R.G.A. Det. Muss. V. Rif.
				Det. "H" Co., R. E.
				H. Qrs. and B. Nos. 1, 2, 5, 6, Cos., 1st S. and M.
				34th Half Troop, S. T. Bullocks.
				Det., Mussoorie Vols.

SAHARANPUR— .. ..

8th (LUCKNOW) DIVISION—(Headquarters, Lucknow, K. C. I. E.)

Commander, Scallops, Lieut.-Gen. Sir R. I., K.C.B., D.S.O., A.D.C.  
A.-D.-C., Daniell, Capt. W. R., 123rd Rifles.

GENERAL STAFF—

Gen. Staff Offr., 1st gr., Woodyatt, Col. N. G.  
Gen. Staff Offr., 2nd gr., Marjoribanks, Bt.-Maj. R. D., 107th Pioneers, p.s.c.  
Gray, Capt. J., 36th Sikhs (Offy.).

ADMINISTRATIVE, TECHNICAL AND DEPARTMENTAL STAFF.

D. A. A.-G., Tyler, Capt. R.M., Durh. L.I., p.s.c.  
A. Q. M. G., Iggulden, Col. H. A., Brit. Ser.  
Comdg. R. E., Swayne, Col. H.C.G., Brit. Ser.  
Divl. Asst. Dir. of Ordnance Stores, Radcliffe, Lt.-Col. W.C.A., R.A.  
Asst. Dir. of Supplies and Tpt., Sanders, Lt.-Col. G.L.H., S. and T. Corps.  
Asst. Dir. of Grass Farms, Hawks, Maj. G.A.  
Depy. Dir. Medl. Services, Hathaway, Surg.-Genl. H.G., Brit. Ser.  
Depy. Asst. Dir. Medl. Services (Sany.), Safford, Maj. A.H., R.A.M.C.  
Depy., Asst. Dir., Medl. Services, (Mobn.), Hamilton, Capt. W. H., F.R.C.S., I.M.S.

SHILLONG.

Comdg.	..	Murray, Bt.-Col. F., D.S.O., 8th G. R.	
S. O. (3rd cl.) and Cant. Magte.	..	Orchard, Capt. D. S., 8th G.R.	

} Det., Assam V. L. H. 1st Bn., 8th G. R.

BAKSA-DUAR.

Comdg. & Cant. Magte .. Light, Maj. W.A., 114th Mah-rattas. | Det., 114th Mahrattas.



## DIBRUGARH.

Comdg.	.. ..	.. Andrew, Lt.-Col. A. W., 114th Mahrattas (L)	} Assam V.L.H. 114th Mahrattas.
S. O. (3rd cl.) and Cant. Mag'e.	..	.. Meredith, Lt. A. E., 114th Mahrattas.	

## KOHIMA.

Comdg. and S. O. (3rd cl.) .. Fagan, Maj. B. J., 17th Infantry | Det., 17th Infantry.

## MANIPUR.

Comdg.	.. ..	.. Tytler, Lt.-Col. H.C., 17th Infantry.	} 17th Infantry.
S. O. (3rd cl.)	.. ..	.. Barron, Lt. A.H.D., 17th Infantry.	
SADIYA	Det. 114th Mahrattas.	SILCHAR ..	.. Surma Valley L. H.
CHITTAGONG	A. B. Ry. ... Vol. Rif.	DAUCA ..	.. E. B. Vol. Rif.

## LUCKNOW GARRISON—

Commanding .. ..	.. Wilson, Maj.-Genl. A., C.B., Brit. Ser.	} Oudh Sqn., U.P., Horse. IX Bde. R. F. A., 20 Batt. Lucknow, Vol. Rif., O. and R. Ry. Vol. 26th Mule Corps, 50th, 51st, 54th 2 Sectns., 61st Half Troops, A. T. Bullocks. No. 8 Co., A.H.C., 8 Co., A.B.C.
S. O. (1st cl.)	.. Fellowes, Maj. H. LeM., 47th Sikhs.	
	.. Hutchinson, Capt. G., 122nd Infantry, p.s.c. (Offg.)	
Asst. C. R. E.	.. Ewbank, Lt.-Col. W., R.E., p.s.c.	
Offr. in charge Tpt.	.. Edward-Collins, Bt.-Maj. C.E., S. and T. Corps.	
Offr. in charge Supplies,	.. Wildes, Capt. C.S.D., S. and T. Corps.	
Garrn. Engr.	.. Winsloe, Maj. A. R., D.S.O., R.E.	
Cant. Magte.	.. Fenning, Maj. W. M., Supy. 1st (Offg.).	

LUCKNOW (Cavalry) BRIGADE—(Headquarters, LUCKNOW.) (Includes the Cavalry at Allahabad, Cawnpore and Fyzabad for training.)

Bde.-Comdr.	.. ..	.. Cookson, Maj.-Genl. G.A., C.B.	.. 8th Hussars, XI. Lde., R. H. A., "U." Batt.
		.. Stainforth, Lt.-Col. H.G., 4th Cavalry (Offg.)	.. "G" Ammn. Col., R.H.A., 16th Cavalry. For training—4th Cavy., 12th Cavy., 36th Horse.
Bde.-Maj.	.. ..	.. Torrie, Capt. T. G. J., 27th Cavalry, p.s.c.	

## LUCKNOW (Infantry) BRIGADE—(Headquarters, Lucknow.)

Bde.-Comdr.	.. ..	.. Wilson, Maj.-Genl. A., C.B., Brit. Ser.	1st Bn. K. O. Sco. Bord.
Bde.-Maj.	.. ..	.. Howard, Capt. T.N.S.M., W. Yorks. R.	1st High. L. I. 36th Sifhs. 74th Punjabis.

## FYZABAD BRIGADE—(Headquarters, Fyzabad.)

Bde.-Comdr., Haggard, Lt.-Col. H., E. Yorks R (Offg.).  
 Bde.-Maj., Cloete, Capt. L. B. 37th Dogras, p.s.c.  
 Offr. in charge, Supplies, Comyn, Capt. G. V., S. & T. Corps.  
 Asst. Dir. Medl. Services, Hardy, Lt.-Col. F. W., R.A.M.C. (Offg.).

## FYZABAD.

Garrn. Engr.	.. ..	..	4th Cavalry, IX Bde., R. F. A.
Cant. Magte.	.. ..	.. Trotter, Maj. E. G. S.	.. 28 Batt., No. 8 A.C., R.F.A. 2nd E. Yorks. R. 9th Infantry. One Troop, 26th Mule Corps. 49th Half Troop, A.T. Bullocks. B. and N. W. Ry. Vol. Rif.

GORAKHPUR—

ALLAHABAD BRIGADE—(Headquarters, Allahabad).

*Bde. Comdr.*, Cowper, Brig.-Gen. M., C.I.E., (Col. on Staff).  
*Bde.-Maj.*, Russel, Maj. F. D., 1st Lancers, p.s.c.  
*Staff Captain*, Popsy, Capt. G. L., 57th Rifles, p.s.c. (*Offg. Bde. Maj.*).  
*Howson*, Capt. G., 4th Cavalry (*Offg.*).  
*Asst. C. R. E.*, Hume, Maj. A. H. B., R. E. (*Offg.*).  
*Offr. in charge Supplies.*, Whittell, Lt. H. S. & T. Corps.  
*Asst. Dir., Medl. Services*, Hardy, Lt.-Col. F. W., R.A.M.C. (*Offg.*).

ALLAHABAD.

<i>Garrn. Engr.</i>	..	.. Carr-Harris, Capt. E.D., R.E.	..	} 12th Cavalry, Iv. Bde., R.F.A., 14 Batt., No. 82 Co., R.G.A., 1st R. Scots. Allahabad Vol. Rifles. 48th Pioneers. 2 Troops, 26th Mule Corps. 45th, 40th, 47th, 53rd Half Troops, A.T. Bullocks. No. 7 Co., A.H.C.
<i>Cant. Magte.</i>	..	.. Hunt, Maj. V. de V.	..	

BENARES.

<i>Comdg.</i>	..	.. Fowler, Col. (C.A., D.S.O., 22nd Punjabis.	} Det. U.P. Lt. H. (So. Regt.). Det., 1st R. Scots. 22nd Punjabis. Det., A.T. Bullocks.
<i>S. O. (3rd cl.) &amp; Cant. Magte.</i>	*		

CAWNPORE.

<i>Comdg. (1st cl.)</i>	..	.. Roome, Lt.-Col. R.E., 36th Horse	} U.P. Lt. H. (So. Regt.). 36th Horse, IX Bde., R. F. A., 19 Batt., 3rd Bu., Midd'x. R. Cawnpore Vol.; Det., E. I. R. Vol. 62nd Punjabis 24th Mule Cadre. 52nd Half Troop, A.T. Bullocks. Det., S.T. Bullocks.
<i>S. O. (3rd cl.)</i>	..	.. King, Capt. J. St. A., 62nd Punjabis.	
<i>Garrn. Engr.</i>	..	..	
<i>Offr. in charge Supplies</i>	..	.. Bridge, Capt. R.E.A., S.&T. Corps	
<i>Cant. Magte.</i>	..	.. Lawrenson, Maj. T.G.P., Supy.	

GHAZIPORE	Dets., N.-W. Ry. Vol.	} CHUNAR .. GYA .. MIRZAPORE .. MOGHAI SERAI ..	} Det., E. I. R. Vol. Det., Allahabad Vol. Rif.
HAMIRPUR	Det., Cawnpore Vol. Rif.		
BANDA			
ORAI			

PRESIDENCY BRIGADE—(Headquarters, Fort William, Calcutta.)

*Bde. Comdr.*, May, Maj.-Genl. E. S., C.B., C.M.G., Brit. Ser.  
*Gen. Staff Offr., 2nd gr.*, Hocken, Maj. C. A. F., 35 Horse, p.s.c.  
*Maclean*, Maj. T. R., 40th Pathans (*Offg.*).  
*D. A. A. and Q. M. G.*, Radcliffe, Maj. F.W., Dorset R., p.s.c.  
*A. C. R. E.*, Ainslie, Lt.-Col. C., R.E.  
*Offr. in charge Supplies*, Hughes-Hallett, Capt. R. L., S. & T. Corps.  
*Asst. Dir. Medl. Services*, Reilly, Lt.-Col. E.C., R.A.M.C. (*Offg.*).

FORT WILLIAM.

<i>Garrn. Qr.-Mr.</i>	..	.. Gillies, Capt. H., 1st Lancers	..	No. 62 Co., R.G.A.
<i>Garrn. Engr.</i>	..	.. Rundle, Maj. F.P., R.E.	..	2nd Black Watch, Calcutta Sec., 1st S. & M., 75th Infantry.

BARRACKPORE.

<i>Comdg.</i>	..	.. Heycock, Lt.-Col. C.H., R.E.	} IV Bde., R.F.A. 7 Batt, Cossipore Arty. Vols. Det. 2nd R. Lanc. R. 93rd Burma Infantry.
<i>S. O. (3rd cl.)</i>	..	.. Barrett, Capt. G.H.J., 93rd Infantry.	
<i>A. C. R. E.</i>	..	.. Heycock, Lt. Col. C. H., R.E.	
<i>Cant. Magte.</i>	..	.. Walker, Capt. A.M.E.H.T.	

## DARJEELING.

<i>Comdg.</i> ..	.. Hingley, Maj. S.H., Midd'x R.	.. Northern Bengal Mtd. Rif.
<i>S. O. (1st cl.) and Cant. Magte.</i> ..	.. Colchester-Wemyss, Capt. J.M., R. Scots.	Det., 2nd Black Watch, Det., 1st Arg. and Suthd. Highrs.
<i>Gurrn. Engr.</i> ..	.. *	

## DINAPORE.

<i>Comdg.</i> ..	.. Williams, Capt. R.C., 66th Bn. R. F. A.	} IV Bde, R.F.A., 66 Batt., 1st Arg. and Suth'd. Highrs. (4 Coys.) Det., St. Michael's School Cadet Corps, 11th Rajputs, 4th 67 Troop and 48th Half Troop, A. T. Bullocks.
<i>S. O. (3rd cl.)</i> ..	.. Stoddart, Capt. H., 11th Rajputs.	
<i>Cant. Magte.</i> ..	.. Kirkwood, Maj. A. T.	

## DUM DUM.

<i>Comdg.</i> ..	.. Watson, Capt. I.W., Arg. and Suth'd Highrs.	} Det., Cossipore Arty. Vol. Wing 1st Arg. and Suth'd Highrs.
<i>Cant. Magte.</i> ..	.. Walker, Capt. A.M.E.H.T.	
		60th Half Troop, A.T. Bullocks

## GANTOK.

<i>Comdg.</i> ..	.. Weaver, Capt. H., 114th Mah-rattas.	Det., 114th Mahrattas.
<i>S. O. (3rd cl.)</i> ..	.. Mulliken, Lt. E.M., 114th Mah-rattas.	

## GYANTSE.

<i>Comdg.</i> ..	.. Fenton, Capt. L.S., 113th Infantry.	Det., 113th Infantry.
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## LEBONG.

<i>Comdg.</i> ..	.. Martin, Lt.-Col. A.R.S., R. Lanc. R., p.s.c.	2nd RR. Lanc. R.
<i>Cant. Magte. and Actg. S.O.</i> ..	.. Ray, Lt. R.A., R. Lanc. R.	

## TAKDAH.

<i>Comdg.</i> ..	.. Firth, Maj. R.A., 10th G.R.	.. 2-10th Gurkha Rifles
<i>S. O. (3rd cl.) and Cant. Magte.</i> ..	.. Atkinson, Capt. W.N., 10th G.R.	

ALIPORE* ..	.. 40th Pathans.	ADRA ..	.. 2nd B.N.Ry. Vol. Rifle Corps.
SERAMPORE ..	.. *	CHAKARPHARPUR ..	.. 1st B.N.Ry. and Det., 1E. Coast Vol.
BALLYGUNGE ..	.. Squad., 12th Cavalry.	KHARGPUR ..	
BANKIPORE ..	.. } Det., Bihar Lt. H.		
	.. } Det., E. I. R. Vol.		
BARAKAR ..	..	BARNAGORE, BUDDERTOLLAH	
BUXAR ..	.. } Det., E. I. R. Vol.	FORT, GLOSTER, GOOSERY,	
PATNA ..	..	HOWRAH, KACHAPUR, JUGAT-	
RANCHIL ..	.. Chota Nagpur Light Horse.	JAL, KAMARHATTY, KANKI-	} Det., Cossipore Arty. Vols.
		NARRAH, KHARDA, RISHRA,	
		SEENPORE, TITTAGHUR.	
CALCUTTA* ..	..		Cal. F. Def. Vol., Cal. Light Horse, Cossipore Arty. Vols. 1st and 2nd C.V.R.; E. B. S. R. Vols.
			55th Half Troop, S.T. Bullocks, 56th, 57th, 58th, 59th Half Troops, A.T. Bullocks.
MOZUFFERPORE ..	.. Bihar Lt. Horse.		
SONASTIPORE ..	.. Det., Bihar Lt. Horse.		
JAMALPORE ..	.. E. I. R. Vols.		
GIRIDIH ..			
JAJHA ..		DAM DIM ..	.. Det., N.B. Mtd. Rif.
ONDAL ..			
RAMPUR HAUT ..	.. } Det., E.I.R. Vol.		
RANEGUNGE ..		GONATEA, SARA ..	Det., Cal. Lt. Horse.
SAHIBGUNGE ..			
SITARAMPUR ..			
COORJEE ..	.. St. Michael's School Cadet Corps.		

\*The troops at Alipore and Calcutta form part of the garrison of Fort William.

# Army Commands in India.

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## KOHAT BRIGADE—Headquarters, *Kotha*.

*Bde. Comdr.*, Campbell, Maj.-Gen. F., C.B., D.S.O.

*Gen. Staff Offr.*, 2nd gr., Peck, Maj. A.W., 22nd Cavalry.

*D. A. A. and Q. M. G.*, Grant, Capt. G.P., D.S.O., 106th Pioneers, p.s.c.

*D. A. A. and Q. M. G.*, Duncan, Capt. H. C., 9th G.R., p.s.c. (*Offg.*).

## KOHAT.

<i>A. R. C. E.</i> ..	.. Wilson, Lt.-Col. F.A., R.E.	..	..	} 31st Lancers, 31 Mtn. Batty. Frontier Garn. Arty., 53rd Sikhs ( <i>en route from Full-</i> <i>under</i> ), 54th Sikhs, 56th a Rifles, 122nd Infantry, 33rd Mule Corps.
<i>Asst. Dir. Medl. Services</i>	.. Robertson, Col. R., I.M.S.	..	..	
<i>Garn. Engr.</i>	.. Fox, Capt. B.H., R.E.	..	..	

## FORT LOCKHART.

<i>Comdy.</i>	..	.. Fenner, Lt.-Col. C.C., 59th Rifles.	} Det., Fron. Garn. Arty. 59th Rifles.	
<i>S. O. (3rd cl.)</i>	..	.. Anderson, Capt. B.E., 59th Rifles.		
<i>Garn. Engr.</i>	..	.. Britten, Lt. W.E., R.E.		
		THAL.		
<i>Comdy.</i>	..	..*	..	.. Dets., 31st Lancers, Det., 59th Rifles.

## HANGU.

Det., 31st Lancers, 59th Rifles.

## BANNU BRIGADE—Headquarters, *Bannu*.

*Bde. Comdr.*, O'Donnell, Maj.-Genl. H., C.B., D.S.O.

*Gen. Staff Offr.*, 2nd gr., Loch, Maj. S.G., D.S.O., R.E., p.s.c.

*D. A. A. and Q. M. G.*, Tyrell, Capt. A.C.L., 25th Cavalry, p.s.c.

<i>A. C. R. E.</i>	..	.. Barton, Maj. H.J., R.E.	} 25th Cavalry; 28 Mtn. Batty. Det., Frontier Garn. Arty.; 24th Punjabis, 52nd Sikhs, 55th Rifles.
<i>Offr. in charge Supplies and</i>	..	.. Kendall, Capt. S.R.G., S.&T.	
<i>Tpt.</i>		Corps.	
<i>Asst. Dir. Medl. Services</i>	..	.. Thomson, Lt.-Col. G.S., M.B., I.M.S. ( <i>Offg.</i> ) ( <i>also Offg. A.D.</i> <i>M.S., Derajat Bde.</i> ).	

*Garn. Engr.* .. Skinner, Capt. R.B., R.E.

## DERAJAT BRIGADE—Headquarters, *Dera Ismail Khan*.

*Bde. Comdrs.*—

Younghusband, Maj.-Genl. Sir G.J., K.C.I.E., C.B., p.s.c.

Cox, Col. F. W. H., 72nd Punjabis (*Offg.*).

*Gen. Staff Offr.*, 2nd gr., Tarver, Maj. A.L., D.S.O., 124th Infantry, p.s.c.

*D. A. A. and Q. M. G.*—

Hay, Capt. C.J. B., Guides, p.s.c.,

Gitchrist, Capt. W. F. C., 52nd Sikhs p.s.c. (*Offg.*).

<i>Asst. C. R. E.</i>	..	.. Bond, Maj. R.F.G., R.E.	} 35th Horse, 32 Mtn. Batt. 18th Infantry ( <i>en route from</i> <i>Aden</i> ) 27th Punjabis, 45th Sikhs (temply. absent on outpost duty), 72nd Pun- jabis.
<i>Offr. in charge Supplies and</i>	..	.. Wace, Capt. S.L., S.&T. Corps	
<i>Tpt.</i>			
<i>Asst. Dir. Medl. Services</i>	..	.. Thomson, Lt.-Col. G.S., M.B., I.M.S. ( <i>Offg.</i> ) ( <i>also Offg. A.D.</i> <i>M. S. Bannu Bde.</i> ).	

*Garn. Engr.* .. Burton, Capt. W.N., R.E. (*Offg.*).

JANDOLA

ZAM

DRAZINDA

JATTA

SHEKH-BUDIN

The Cavalry and Infantry detachments for these outposts are found by the garrison of Dera Ismail Khan.

## COMMANDS (SOUTHERN ARMY).

## SOUTHERN ARMY.

## Headquarters, Ootacamund.

*General Officer Commanding*, Nixon, Lieut. Gen. Sir J. E., K.C.B.,  
*A. M. S., A.-D.-C.*, Beach, Maj. W. H., R. E.  
*A.-D.-C.*, Nixon, Lt. E. J., R.A.  
*A.-D.-C.*, Malik Ghulam Muhammad Khan, Risldr.-Maj., Sardar Bahadur,, Khan Bahadur, 39th  
Horse.

## GENERAL STAFF.

*Brig.-Gen.*, Money, Brig.-Gen. A.W., C.B., Brit. Ser. p.s.c.  
*Gen. Staff Offr., 2nd gr.*, Gregory, Maj. C. L., 19th Lancers, p.s.c.

*D. F. A. G.*—

Brownlow, Maj. d'A. C.

Nicholas, Maj. S.H.E., 95th Infantry (*Offg.*).

*Insrps. Army Schools*—

Fairbrother, Inspr., Army Schools, W. G. (Hony. Lt.) 4th Circle Bangalore.

McCleesh, Inspr., Army Schools, A.J.H. (Hony. Lt.) 6th Circle, Poona.

*Insrp., of Physical Training*, Hayne, Capt. S. S. North'n R.

## 4th (QUETTA) DIVISION—(Headquarters, Quetta).

*Commander*, Grover, Lt.-Gen. Sir M.H.S., K.C.I.E, C.B.

*A.-D.-C.*, Robertson, Capt. D.E., 11th Lancers.

*Comdg. R. A.*, Scott, Brig.-Genl. A.B., D.S.O., Brit. Ser.

## GENERAL STAFF.

*Gen. Staff Offr., 1st gr.*, Taylor, Col. E.T., Brit. Ser. p.s.c.

*Gen. Staff Offr., 2nd gr.*, V.C. Colvin, Maj. J.M.C. R.E., p.s.c.

*Gen. Staff Offr., 2nd gr.*, Deverell, Capt. C. J., W. Yorks R., p.s.c.

## ADMINISTRATIVE TECHNICAL AND DEPARTMENTAL STAFF.

*D. A. A.-G.*, Norman, Maj. W. H., 11th Lancers. p.s.c.

*A. Q.-M. G.*, Shewen, Col. M. T.

*Comdg. R. E.*, Rimington, Lt.-Col. J.C., R.E.

*Asst. Dir. of Ordee. Stores*, Carter, Maj. E. P., R.A.

*Asst. Dir. of Supplies*, Beville, Lt.-Col. C.F., S. and T. Corps.

*Asst. Dir. of Tpt.*, Bell, Lt.-Col. R.M.S. and T. Corps. (*Offg.*).

*Asst. Dir. Medl. Services*, Macpherson, Col. W. G., C.M.G., M.B., Brit. Ser., R.V.P.

*Depy. Asst. Dir. Medl. Services (Sany.)*, Stammers, Maj. G. E. F., R.A.M.C.

*Depy. Asst. Dir. Medl., Services (Mobn.)*, Young, Maj. G.J.G., M.B., I.M.S.

## QUETTA.

<i>Comdg.</i>	..	..	.. V.C. Mellis, Maj.-Genl. C. J., C.B.	23rd Cavalry.	
<i>S. O. (1st cl.)</i>	..	..	.. Melville, Capt. E. P.A., 23 Pioneers L., ex. i., 8 mos. 19 July 13 Cameron, Capt. C.S., 23rd Cavy. ( <i>Offg.</i> ).	IV Brit. Mtn. Arty. Bde. attached	7 Batt. 8 Batt. 4 Batt.
<i>Asst. C. R. E.</i>	..	..	.. Pilcher, Lt.-Col. A.J., R.E.	Nos. 51, 101 Cos. R.G 4.	
<i>Offr. in charge, Supplies</i>	..	..	.. Stewart, Capt. A.F., S. and T. Corps.	No. 33 (Divl. Signal) Coy.	
<i>Cant. Magts.</i>	..	..	.. Pallin, Maj. R. H.	2nd, 14th Mule Corps; 1 troop Fren. Garnn.- Mules, 14th Half Troop S. T. Bullocks, 20th, 21st Half Troops A. T. Bullocks. No. 4 Co., A.H.U., 4 Co., A.B.C.	

## CHAMAN.

<i>Comdg.</i>	..	..	.. Drew, Lt.-Col. A.B.H., 29th Punjabis.	Det., 23rd Cavalry. 29th Punjabis.	
<i>S. O. (3rd cl.)</i>	..	..	.. James, Maj. A.A., 29th Punjbs.	Det., 14th Mule Corps. Det., A. T. Bullocks.	

## FORT SANDEMAN.

<i>Comdg.</i>	..	..	.. Malcolm, Lt.-Col. W. L., 31st Punjabis.	31st Punjabis.	
<i>Garrn. Engr.</i>	..	..	.. North, Capt. H.N., R.E.,	Det., 2nd Mule Corps. 1 troop, Fron. Garnn. Mules. Det., A. T. Bullocks.	

JACOBABAD.

<i>Comdg.</i> .. ..	.. Luck, Lt.-Col. C.A., 22nd Cavalry.	} 22nd Cavalry.
<i>Cant. Magte.</i> .. ..	.. Slingsby, Capt. T.W., 22nd Cavalry.	

LORALAI.

<i>Comdg.</i> .. ..	.. Maxwell, Lt.-Col. W.L., 10th Lancers.	} 10th Lancers.
<i>S. O. (3rd cl.) and Cant. Magte.</i> .. ..	.. Mac Brayne, Capt. R.J., 15th Sikhs.	
<i>A. C. R. E.</i> .. ..	.. Riach, Maj. A.H.D., R.E., (Offg.).	Det., 2nd Mule Corps. 1 troop Fron. Garrn. Mules. Det., A. T. Bullocks.

<i>DRUG</i> .. ..	Det., 15th Sikhs.	<i>MARATANGI</i> .. ..	Det., 10th Lancers.
<i>GIRDAO</i> .. ..	.. *	<i>MASTUNG</i> .. ..	Det., 106th Pioneers.
<i>GULISTAN</i> .. ..	.. *		
<i>GUMBAZ</i> .. ..	Det., 10th Lancers.	<i>MIR ALI KHEL</i> .. ..	Det., 31st Punjabis.
<i>HARNAI</i> .. ..	Det., 2nd Mule Corps.	<i>MURGHA</i> .. ..	Det., 2nd Mule Corps.
			Det., 10th Lancers.
			Det., 2nd Mule Corps.
			Det., 10th Lancers.
<i>HINDUBAGH</i> .. ..	Det. A. T. Bullocks.	<i>MUSA KHEL</i> .. ..	Det., 15th Sikhs.
<i>HIROK</i> .. ..	Det. 106th Pioneers.		Det., 2nd Mule Corps.
	Det., 106th Pioneers.	<i>PISHIN</i> .. ..	Depots, 124th and 126th Infy.
			Det., 106th Pioneers.
<i>KILLA SAIFULLA</i> .. ..	Det., 106th Pioneers.		Det., 14th Mule Corps.
<i>KISHINGI</i> .. ..	.. *	<i>SHELABAGH</i> .. ..	Det., 29th Punjabis.
<i>MANIEKHA</i> .. ..	.. *	<i>SHINGARH</i> .. ..	.. *
		<i>SIRI</i> .. ..	.. *

QUETTA 1ST (INFANTRY) BRIGADE—(Headquarters, Quetta).—(Includes the Indian Infantry at Pishin for training).

<i>Bde. Comdg.</i> .. ..	.. Laing, Lt.-Col. F. C., 121st Pioneers. (Offg.)	} 1st Essex R., Det., N.W., Ry. V. Rif. Bal'n. V. Rif., 26 Ry. Coy., 58th Rifles, 121st Pioneers; 7th G. R.
<i>Bde. Maj.</i> .. ..	.. Malik, Capt. J.H.F., 7th G. R. p.s.c.	

QUETTA 2ND (INFANTRY) BRIGADE—(Headquarters, Quetta) (Includes the Indian Infantry 2 Battalions at Loralai, Chaman and Fort Sandeman for training).

<i>Bde. Comdr.</i> .. ..	.. V.C. Melliss, Maj.-Gen. C.J. c.B., (L)	} 2nd R. Wel. Fus. 2nd R. Ir. Fus. Nos. 17 and 18 Cos., 3rd S. and M. 67th Punjabis. 106th Pioneers.
<i>Bde. Maj.</i> .. ..	.. Moberly, Maj. H.S., 66th Punjabis, p.s.c.	

KARACHI BRIGADE—(Headquarters, Karachi).

*Bde. Comdr.*, Shaw, Brig.-Gen. D.G.L.  
*Gen. Staff Offr.*, 2nd br., Dickson, Maj. W. E. R., R.E.  
*D. A. A. and Q.-M. G.*, Winter, Maj. C. B., 112th Infantry.  
*Asst. C. R. R.*, Hingston, Maj. E., R.E. (Offg.).  
*Offr. in charge, Supplies*, Cates, Maj. W. J., S. and T. Corps.  
*Asst. Dir. of Med. Services*, Grant, Col. D. St. J.D., M.B., I.M.S.

KARACHI.

<i>S. O. (2nd cl.)</i> .. ..	.. Webb, Capt. R.E., York., and Lancs R. (Offg.).	} XVIII Bde., R. F. A., 94 Batt. Karachi Arty, Vol.
<i>Garrn. Engr.</i> .. ..	.. Young, Capt. E. de L., R.E.	
<i>Cant. Magte.</i> .. ..	.. *	1st York and Lanc. Regt. Sind V. Rif., 2nd Bn. N. W. Ry. V. Rif.
		Det., 10th Jats, Depot. 26th Punjabis.
		30th Mule Corps; 22nd Half Troop, A. T. Bullocks.
		No. 69 Coy., R.G.A.
		Karachi Section, S. and M.
<i>MANORA</i> .. ..	.. ..	



NASIRABAD BRIGADE—(Headquarters, *Nasirabad*).

*Bde. Comdr.*, Davison, Maj.-Genl. K.S., C.B.

*Bde.-Maj.*, Ashburner, Capt. L. F., M.V.O., D.S.O., R. Fus., p.s.c.

*Staff Capt.*—

Dickinson, Maj. A. T. S., 51st Sikhs, p.s.c. (*Offg. Bde.Maj.*).

Glynton, Capt. G. M., 3rd G. R., p.s.c., (*Offg.*).

*A. C. R. E.*, \*

*Offr. in charge Supplies.*, Bond, Capt. G.W., S. and T. Corps.

NASIRABAD.

<i>S. O. (2nd cl.)</i>	..	.. Taylor, Lt. T.E.H., R. Ir. Regt.	} Det. 27th Cavalry. XX. Bde., R.F.A., 98th Batt 1st R. Ir. Regt. 90th Punjab. Det., 12th Mule Corps; Det. 23rd H. T. A. T. Bullocks.
<i>Cant. Magte.</i>	..	.. Anderson, Capt. K.E.	

NASIRABAD BRIGADE—(Headquarters, *Nasirabad*).

AJMER.

<i>Comdg.</i>	..	.. Dunlop, Lt.-Col. H.H., 44th Infantry.	} 2nd B. B. & C. I. Ry. Vol. 44th Infy. Det., 12th Mule Corps
<i>S. O. (3rd cl.)</i>	..	.. Shaw, Capt. W.W., 44th Infantry.	

DEESA.

<i>Comdg.</i>	..	.. Lloyd-Jones, Maj. F. L., 113th Infantry.	} No. 5 Ammu. Col., R.F.A. ( <i>tempy</i> ) 113th Infantry.
<i>Cant. Magte.</i>	..	.. Browne, Capt. W. S. W., 44th Infantry	

DEOLI.

<i>Comdg.</i>	..	.. Waller, Lt.-Col. F. C. L., 42nd Deoli Regt.	} Det., 27 Cavalry. 42nd Deoli Regt.
<i>Cant. Magte.</i>	..	.. Taylor, Capt. F.L., 42nd Deoli Regt.	

ERINPURA.

<i>Comdg.</i>	..	.. Banbury, Lt.-Col. W. E., 43rd Regiment.	} 43rd Erinpura Regt.
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MOUNT ABU (*Sauitarium*).

<i>Comdt.</i>	..	.. Guyon, Maj. G.S., R. Fus.	} Details Det., 2nd B. B. & C. I. Ry. Vol. 24th Half-Troop S. T. Bullocks. Det., 12th Mule Corps.

NEEMUCH.

<i>Comdg.</i>	..	.. Gray, Lt.-Col. P.E., R.F.A.	} 27th Cavalry, XX Bde., (99 Batt. R. F. A. { 100 Batt.
<i>S. O. (3rd cl.)</i>	..	.. Brodriek, Lt. W. LeC., 27th Cavalry.	
<i>Corn. Engr.</i>	..	.. Bell, Capt. A.H., R.E.	} Det., 1st R.I. Regt., Det., 2nd Bo., B. B. & C. I. Ry. Vol. Det. 23rd H.T., A. T. Bullocks. Det., 12th Mule Corps. Det., 27th Cavalry.
<i>Cant. Magte.</i>	..	.. Wimberley, Maj. F.G.A., Supy. List.	

JAIPUR

ABU ROAD } Dets., 2nd B., B. & C. I. Ry. Vol.	PHULERA	.. Det., 2nd B.B. & C. I. Ry. Vol.
BANDIKUI	TONK	.. *

JUBBULPORE BRIGADE—(Headquarters, *Jubbulpore*).

*Bde. Comdr.*—

Fanshawe, Brig. Gen. H. D., C.B., Brit. Ser.

Baynes, Lt.-Col. C. E., 32nd Lancers (*Offg.*).

*Bde.-Maj.*, Mackenzie, Capt. J.H., R. Scots, p.s.c.

*Staff Capt.*, Humphreys, Maj. D. W. H., D.S.O., 8th G. R., p.s.c.

*Asst. C. R. E.*, Lathbury, Maj. H.O., R. E.

*Offr. in charge Supplies.*, Lushington, Maj. W.N., S. & T. Corps.

*Asst. Dir. Medical Services.*, Lucas, Col. T. J. R., C.B., M.B., Brit. Ser. (also A. D. M. S., Jhansi Bdc.).



## JUBBULPORE.

<i>S. O. (2nd cl.)</i> .. ..	.. ..	Leapingwell, Capt. H.B., 97th Infantry.	} 32nd Lancers. XI Bde., R.F.A. { 83 Batt. 84 Batt. 85 Batt.
<i>Garrn. Engr.</i> .. ..	.. ..	Cusins, Capt. A.F., R.E. ..	
<i>Cant. Magte.</i> .. ..	.. ..	Parker, Lt.-Col. N.T., Supy. List.	
			11 Ammn. Cō. R.F.A. 2nd R. Fus. 2nd Ches. R. Det., Nag. V. Rif. Det., E.I. Ry. V. Rif. Det., G.I.P. Ry. V. Rif. 16th Rajputs, 97th Infantry. Det. 28th Mule Corps. 25th Half-Troop, S. T. Bullocks.

## 5th (MHOW) DIVISION—concl'd.

## JUBBULPORE BRIGADE—(Headquarters, Jubbulpore.)

## KAMPTEE.

<i>Comdg.</i> .. ..	.. ..	Vickers, Lt.-Col. H., 63rd Infantry.	} XIX Bde., R.F.A., 95 Batt. 1st R. Ir. Rif. Det., Nagpur Vol. Rif. Det., 63rd Lt. Infantry, Det. 23rd Half Troop, S. T. Bullocks.
<i>S. O. (3rd cl.)</i> .. ..	.. ..	French, Lt. R.P.T., R. Ir. Rif.	
<i>Cant. Magte.</i> .. ..	.. ..	Raiff, Lt.-Col. H.C.B., Supy. List.	

## PACHMARHI (Sanitarium).

<i>Comdg.</i> .. ..	.. ..	Stone, Maj. A.B., Ches. R.	} Central School of Musketry. Det., 28th Mule Corps. Det., 25th Half Troops, S. T. Bullocks.
<i>S. O. (1st cl.)</i> .. ..	.. ..	Eddowes, Capt. W.B., Manch. R.	

## SAUGOR.

<i>Comdg.</i> .. ..	.. ..	Watson, Brig.-Gen. W.A., C.I.E., p.s.c.	} Cavalry School. Det., Nagpur Vol. Rif. 2nd Lancers. No. 41 (Wireless) Signal Coy. 98th Infantry. { Det., 28th Mule Corps. c Det., 1st R. E. Rif Det. E. I. R. Vols. • Det. 32nd Lancers. Det., Nagpur Vol.
<i>S. O. (3rd cl.)</i> .. ..	.. ..	Mitford, Capt. J.P., 98th Infantry.	
<i>Cant. Magte.</i> .. ..	.. ..	Davison, Lt. D. S., 2nd Lancers	
SITABALDI .. ..	.. ..	.. ..	
SUTNA .. ..	.. ..	.. ..	
BALAGHAT, BHANDARA, BILANPUR, CHINDWARA, DAMOH, DANGIRI, RAIPUR, SEONI .. ..	.. ..	.. ..	
HARDA .. ..	.. ..	.. ..	Det., 1st G.I.P. Ry. Vol.
NAGPUR .. ..	.. ..	.. ..	Nagpur Vol. Rifles; 2nd Bengal Nagpur Ry. Vol.

## JHANSI BRIGADE—(Headquarters, Jhansi),

*Bde. Comdr.*, Townshend, Maj.-Gen. C. V. F., C.B., D.S.O., Brit. Ser. c  
*Bde. Maj.*, Hope, Maj. J. W., R.F.A., p.s.c. c  
*A. C. R. E.*, Burgess, Capt. B., R. E. (*Offg.*). c  
*Offr. in charge Supplies*, Pearce, Capt. W.P., A.X.C. •  
*Offr. in charge Tpt.*, Campbell, Capt. W., S. and T. Corps. c  
*Asst. Dir. Medl. Services*, Lucas, Col. T. J. R., C.B., M.D., Brit. Ser. (also A.D.M.S., Jubbulpore Bde.). c

## JHANSI.

<i>S. O. (2nd cl.)</i> .. ..	.. ..	Ayscough, Capt. G.M., 116th Mahrattas	} 8th Cavalry. VI (Howr.) { 74 Batt. Bd. R.F.A. c { 79 Batt. 12 Ammn. Col. R.F.A. 2nd R. Berks. R., Det., Cawnpore Vol. 2nd G.I.P. Ry. Vol. Rif. 30th Punjabis, 107th Pioneers, 116th Mahrattas. 28th Mule Corps. 26th Half Troop, S. T. Bullocks.
<i>Garrn. Engr.</i> .. ..	.. ..	Cruikshank, Lt. A.J., R.E.	
<i>Cant. Magte.</i> .. ..	.. ..	Beys, Capt. R.F.S., 122nd Infantry.	

## GOONA.

<i>Comdg.</i> .. ..	.. ..	Cotgrave, Lt.-Col. E.C.B., 38th Hcrs.	} 38th Central India Horse.
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Nowgong.

Comdg. . . . .	Barratt, Col. W.B., C.B., D.S.O., 5th Infantry.	Det., 8th Cavalry Nos. 71, and 72 (Heavy) Batts., R.G.A.
S. O. (3rd cl.) . . . .	Fraser, Capt. T.C., R.G.A.	
Cant. Magte. . . . .	Harvest, Lt.-Col. H. de V., Suppy. List.	Det., 2 R. Berks. R., Det., Cawnpore Vol. 5th Light Infantry. Det., 28 Mule Corps. Det., 26th H. T. S. T. Bullocks.

SEHORE.

Comdg. . . . .	Rea, Lt.-Col. F.W., 99th Infry.	Det. 38th C.I. Horse, 99th Infry
LALIEPUR . . . . .	Det., Cawnpore Vol. KOTAH	Det., 42nd Regt.
MAHOBA . . . . .	Rif. . . . .	

6TH (POONA) DIVISION—(Headquarters, Poona).

Commander, Barrett, Lieut.-Genl. Sir A.A., K.C.B., K.C.V.O.  
A.-D.-C., Lawrence, Lt. A. E., K. R. Rif.  
A.-D.-C., Aga Cassim Shah, Lt.  
Comdg. R. A., Smith, Brig.-Gen. S. C. U., Brit. Ser.

GENERAL STAFF.

Gen. Staff Offr. 1st gr., Gamble, Col. R.N., D.S.O., Brit. Ser., P. S. C.  
Gen. Staff Offr. 2nd gr., Sanders, Maj. G. A. F., R.E., p.s.c.

ADMINISTRATIVE, TECHNICAL AND DEPARTMENTAL.

D. A. A. G., Davie, Maj. J.H.M., 34th Poona Horse. (Offg. G. S. O., 2nd gr.)  
A. Q. M. G.—

Mitchell, Col. G. W.  
Shakespeare, Col. L. W. (Offg.).

Comdg. R. E., Baddeley, Col. C.E., Brit. Ser.  
Asst. Dir. of Ordnance Stores, Iethbridge, Maj. S., R. A. (s.p.t.).  
Asst. Dir. of Supplies and Tpt., Palin, Col. G. W., C.I.E., S. and T. Corps.  
Asst. Dir. of Grass Farms, Obbard, Lt.-Col. E.N.  
Asst. Dir. Medl. Services, Ielhir, Col. F.R.C.S.E., I.M.S.  
Depy. Asst. Dir. Medl. Services (Sany.), Whelan, Maj. J. F., R.A.M.C.

Depy. Asst. Dir. Medl. Services (Mohn).—

Wimberley, Lt.-Col. C.N.C., M.B., I.M.S.  
Browne-Mason, Maj. H. O. B., R.A.M.C. (Offg.).

Supdt. of Physical Training (Sou. Army), Bacon, Lt., R. G., 124th Infantry.

POONA INFANTRY BRIGADE—(Headquarters, Poona),

Bde. Comdr., Aitken Brig.-Gen. A. E. (Col. on Staff).  
Bde.-Maj., Holdich, Maj. H. A., 5th G.R., p.s.c.  
A. C. R.E., Meyer, Maj. J. L., R.E., (Offg.).  
Offr. in charge Supplies, Donovan, Capt. S.J., A.S.C.  
Offr. in charge Tpt., Sweeney, Capt. R. L. C., S. and T. Corps.

POONA.

S. O. (1st cl.) . . . .	Wilson, Capt. R.C., 114th Mah-rattas.	29th Lancers.
	Robinson, Maj. C.F.E.B., 117th Mahrattas (Offg.).	2nd Dorset. R., 2nd L.N. Lan.
Garm. Engr. . . . .	Brace, Smith, Capt. P.W.L., R.E.	R. Det., M. & So. Mah. Ry. Rif.
Cant. Magte. . . . .	Leslie, Maj. P.N. . . . .	Poona Vol. Rif.
		105th Infantry; 117th Mahrattas,
		127th Bal. L. I.
		13th Mule Corps.
		No. 6 Co. A.H.C.; 6th Co., A.B. C.

KIRKEE.

Garm. Engr. . . . .	Nottidge, Lt. G., R.E.	X Bde., R.F.A. { 76 Batt.
Cant. Magte. . . . .	Stewart, Maj. R.J.T., 22nd Punjabis.	{ 81 Batt.
		{ 82 Batt.
		6 Ammn. Col. R. F. A., Det.,
		1st Middx. R., Det., Poona Vol.
		Rif. Hd.-Qrs. F. and Nos. 19,
		20, 21 and 22 Cos.; 3rd S. and
		M.; 12th Pioneers.
		28th Half Troop, S.T. Bullocks.

## PURANDHAR (Sanitarium).

Comdg. and Cant. Magte. ... Braithwaite, Maj. F.J. N. Lan. R. ... Details.

## SATARA.

Comdg. ... .. Blore, Maj. H.R., K.R. Rif. C., p.s.c. } School of Musketry. Det., Poona  
 BIJAPUR .. .. Det., Poona Vol. Rif. .. } Vol. Rif. Det., 12th Pioneers.  
 PANCHGANI .. .. Det., Poona Vol. Rif. .. }  
 SHOLAPUR .. .. Det., Poona Vol. Rif. .. }

## BELGAUM BRIGADE—(Headquarters, Belgaum).

## Bde. Comdr.—

Fry, Brig.-Gen. C. I.

Fowler, Col. F.J., D.S.O., (Offg.).

Bde.-Maj., Dunn, Capt. E. G., R. Ir. Rif. p.s.c.

Offr. in charge Supplies, Salmon, Capt. W.H.B., S. and T. Corps.

## BELGAUM.

Garrn. Engr. ... .. Rait-Kerr, Lt. R.S., R.E. } XIX Bde., R.F.A., 98<sup>th</sup> Batt.  
 S. O. (3rd cl.) .. .. Nance, Lt. W.J., 81st Pioneers } 2nd Norf. R. Det., 2nd M. and  
 Cant. Magte. ... .. Campbell, Lt.-Col. F. J. B., } S. M. Ry. Rif.  
 Supy, List. .. .. } 81st Pioneers, 110th Light<sup>o</sup> Infy.  
 HUBLI .. .. } 120th Infantry.  
 DHARWAR .. .. } 7 secs., 13th Mule Corps.  
 GADAG .. .. } 2nd M. and S. M. Ry. Vol.  
 Det., 2nd M. and S. M. Ry. Vol.

## BOMBAY BRIGADE—(Headquarters, Bombay).

Bde. Comdr., Gorringe, Maj.-Gen. G. F., C.B., C.M.G., D.S.O., Brit. Ser.

Gen. Staff Offr., 2nd gr., Browne, Maj. H. J. P., 5th G. R., p.s.c.

D. A. A. and Q. M. G., Cummins, Maj. H. A. V., 24th Punjabis, p.s.c.

Asst. C. R. E., V. C. Watson, Maj. T. C., R. E.

Offr. in charge Supplies, Preston, Maj. E. E., S. and T. Corps.

Asst. Dir., Medl. Services, Pike, Col. W. W., D.S.O., Brit. Ser.

## BOMBAY.

S.O. (2nd cl.) .. .. Taylor, Capt. J. Mc L. G., 119th }  
 Infantry. }  
 30. L. H. Nos. 5., 79, 85, Cos.  
 R. G. A., Bo. Vol. Arty.;  
 Wing, 1st Notts and Derby R.;  
 1st G. I. P. Ry. Vol.; B<sup>o</sup>  
 Vol. Rifle; 1st B. B. & C. I.  
 Ry. Vol. Bo. Sec. 3rd S. and  
 M.; Depot 2nd Infantry.  
 29th, 30th Half Troop, A. T.  
 Bullocks.

## DEOLALI.

Comdg. and Cant. Magte. ... .. } Mortimore, Maj. C. R., Notts }  
 and Derby R. } No. 77 Coy. R.G.A.  
 Det., Poona Vol. Rif. }  
 Det., A. T. Bullocks.

NASIK .. .. Det., Poona Vol. Rif.

## KHANDALA (Sanitarium).

Comdt. ... .. \* .. .. Details.

## SANTA CRUZ.

Comdg. ... .. Lowther, Lt.-Col. H., 95th In- } 95th Infant<sup>y</sup>.  
 fantry.

SURAT .. .. Det., 1st B. B. and C. I. Ry. Vol.

## AHMEDNAGAR BRIGADE—(Headquarters, Ahmednagar).

Bde. Comdr., Dobbie, Brig.-Gen. W. H., C.B. (Col. on Staff).

Bde. Maj., Lloyd, Maj. J. H., 6th G. R.

Staff Capt., Yates, Capt. J. A., 103rd L. Infantry.

A. C. R. E., Thuillier, Maj. H. F., R.E. (Offg.).

Offr. in charge Supplies, Price, Capt. H. W., S. and T. Corps.

## AHMEDNAGAR.

Cant. Magte. ... .. Anderson, Maj. W. C. .. }  
 "D." Ammn. Col. R. E. A.  
 No. 34 (Divl. Signal) Coy., 1st  
 Bn. Oxf. and Bucks L. I.;  
 Det., Poona Vol. Rif.; 103rd  
 Lt. Infantry. 119th Infantry.

AURUNGABAD.

Comdg.	.. ..	.. Browne, Lt.-Col. A. J. W., 33rd Cavalry.	} 33rd Lt. Cavalry. 79th Infantry. Wing, 102nd K. F. O. Grenadiers.
S. O. (3rd cl.)	.. ..	.. Ferris, Capt. W. A. T., 33rd Cavalry.	
Cant. Magte.	.. ..	.. Molony, Capt. O. H. C., 94th Infantry (Offg.)	
BRUSAWAL	.. ..	.. Det., G. I. P. Ry. Vol.	
DHUNLIA	.. ..	.. Det., Poona Vol. Rifles.	
JALGAON	.. ..	.. Det., Poona Vol. Rifles.	

Commanders—

9th (SECUNDERABAD) DIVISION (HEAD-QUARTERS OOTACAMUND.

Woon, Lt.-Gen. Sir J. B., K.C.B.  
Phayre, Maj.-Gen. A., C.B., (Offg.)  
A.-D.-C., Hemsley, Capt. C., 64th Pioneers.

GENERAL STAFF.

Gen. Staff Offr., 1st gr., Strange, Col. R. G., Brit. Ser.  
Gen. Staff Offr., 2nd gr., Lawrence, Maj. F. R., D.S.O., 14th Hussars, p.s.c.  
Gen. Staff Offr., 2nd gr., Cassels, Maj. G. R., 35th Sikhs, p.s.c.

ADMINISTRATIVE TECHNICAL AND DEPARTMENTAL STAFF.

D. A. A.-G., McCulloch, Capt. A. J., 7th Dn. Grds., p.s.c.  
A. Q. M. G., Wingate, Col. A. W. S.  
Comdg. R.E., Sorsble, Lt.-Col. R. F., R. E. (Offg.)  
Asst. Dir. of Ord. Stores, Garstin, Maj. H. E., R.A. (s.p.t.)  
Asst. Dir. of Supplies and Tpt., Gayer, Lt.-Col. E. A., S. & T. Corps.  
Asst. Dir. of Grass Farms, Alry, Capt. G. (Bangalore).  
Depy. Dir. Medl. Services, Croker, Surgn.-Gen. T. M., M.D., Brit. Ser. R.B.P.  
Depy. Asst. Dir., Medl. Services (Sany.), Galwey, Capt. W. R., M.V., R.A.M.C.  
Depy. Asst. Dir., Medl. Services (Mobn.), Shanahan, Lt.-Col. D. D., R.A.M.C.

SECUNDERABAD AND BOLARUM GARRISON.

Comdg., Wadeson, Brig.-Gen., F. W. G.

S. O. (1st cl.)—

Dayrell, Capt. W. S., 72nd Punjabis.  
Wilson, Capt. W. H. D., 1st Brahmins (Offg.)

Asst. C. R. E.

Offr. in charge Supplies .. Watts, Capt. A. H., S. & T. Corps.

Offr. in charge Tpt. .. Twiss, Capt. H. W. F., S. & T. Corps.

Asst. Dir., Medl. Services .. Smyth, Col. J., M.D., I.M.S., V.H.S.

Staff Surgn. (Secunderabad) .. Blenkinsop, Maj. F. L., M.B., I.M.S.

Staff Surgeon (Bolarum) .. Fleming, Maj. A. N., M.B., F.R.C.S.

Cant. Magte. .. .. Hodgson, Lt.-Col. W. G.

31st Mule Corps; 83rd, 4th, 85th, Half Troops, A. T. Bullocks.  
9th Co., A. B. C.

SECUNDERABAD (CAVALRY) BRIGADE—(Headquarters, Bolarum). (Includes the Cavalry at Bangalore for training.)

Bde. Comdg. .. .. Wadeson, Brig.-Gen. F. W. G.

Bde.-Maj. .. .. Williams, Capt. A. F. C., D.S.O., 31st Lancers, p.s.c.

McEuen, Capt. J. S., 20th Horse (Offg.)

7th Drag. Gds., IX Bde., R.H.A. "N" Batt., H. Ammn. Col., R. H. A., 20th Decan Horse, 34th Poona Horse.  
For training—"S" Batty., R. H. A., 7th Hussars, 26th Lt. Cavalry.

SECUNDERABAD 1ST INFANTRY BRIGADE—(Headquarters, Secunderabad)

Bde. Comdg. .. .. Smith, Lt.-Col. E. P., R.A., (g) (Offg.)

Bde.-Maj. .. .. Battye, Maj. I. U., Guides

XVII Bde., R. F. A. { 10 Batt.  
26 Batt.  
92 Batt.  
9 Ammn. Col. R. F. A.  
2nd Shrops. L. I., 1st Brahmins, 6th Jat L. I., 94th Infy.

SECUNDERABAD 2ND (INFANTRY) BRIGADE—(Headquarters, *Secunderabad*).

<i>Bde. Comdr.</i> .. ..	.. Rodwell, Brig.-Genl. E. H., C.B., p.s.c., (Col. on Staff.)	} 1st Innis. Fus.; Hyderabad Vol. Rif. No. 12 Coy., 2nd R. Sappers and Miners; Depot 8th Rajputs, 64th Pioneers; 83rd Infantry. Det., Hyderabad Vol. Rif.
<i>Bde.-Maj.</i> .. ..	.. Shuttleworth, Capt. D.I., 3rd G.R., p.s.c.	
	.. Furna .. ..	

BANGALORE BRIGADE—(Headquarters, *Bangalore*.)

<i>Bde. Comdr.</i> , Wapshare, Brig. Genl. R. (Col. on Staff.)	
Betham, Col. R. M. ( <i>Offg.</i> )	
<i>Bde. Maj.</i> , O'Grady, Maj. H. DeC., 59th Rifles p.s.c.	
<i>Asst. C. R. E.</i> , Marshall, Maj. H. J. M., R.E.	
<i>Offr. in charge Supplies</i> , Saunders, Capt. P. C., S. and T. Corps.	
<i>Asst. Dir., Medl. Services</i> , Tate, Col. A. E., Brit. Ser., V. H. S. (also A. D. M. S., Southern Bde.)	

## BANGALORE.

<i>S. O. (2nd cl.)</i> .. ..	.. Hanbury, Capt. P. L., Shrops. L. I.	} 7th Hussars; 26th L. Cavalry IX Bde, R. H. A., "S" Batt. XIII Bde., } 2 Batt. R. F. A. } 8 Batt. 10 Ammn. Col. R. F. A., 2nd Cam'n. Highrs., Bangalore Rif. Vol., Det. M. and S. M. Ry. Rif., Hd.-Qs. D., and Nos. 9, 10, 13, 14, Cos., 2nd Q. O. S. and M. 61st Pio- neers, 101st Grenadiers, 108th Infantry. 65th, 66th Half Troops, A. T. Bullocks. Det., 9th Co., A. B. C.
<i>Staff Surgeon</i> .. ..	.. Chambers, Capt. R. A., M.B., I.M.S.	

## BELLARY.

<i>Comdg.</i> .. ..	.. Venour, Maj. W. J., R. Dub. Fus...	} XIII Bde., R. F. A., 44 Batt. Wing, & 1st R. Dub. Fus. Det. M. & S. M. Ry. Rif. Det. A. T. Bullocks, No. 9 Co., A.H.C.
<i>S.O. (3rd cl.) and Cant. Mgte.</i> ..	.. Johnson, Capt. M. A., R. Dub.	

CHICKMAGALUR .. ..	.. Det. C. and M. Rif.
GOOTY .. ..	.. } Det. M. and S. M. Ry. Rif.
GUNTAKEL .. ..	.. }
KOLAR GOLD FIELD .. ..	.. Kolar Gold Fields Rif. Vol.
MERCARA .. ..	.. Coorg & Mysore Rifles.
MYSORE .. ..	.. Det. Bang. R. Vol.
POLLIBETTA .. ..	.. } Det. C. and M. Rif.
SAKLASPUR .. ..	.. }
SIVASAMUDRAM POWER WORKS.	Det., Bang. Rif. Vol.
SHIMOGA .. ..	.. Det. C. and M. Rif.
WHITEFIELD .. ..	.. Det., Bang. Rif. Vol.

SOUTHERN BRIGADE—(Headquarters, *Wellington*.)

<i>Bde. Comdr.</i> , Hamilton, Brig.-Gen. W. G., D.S.O., Brit. Ser. p.s.c.	
<i>Bde.-Maj.</i> , DeCourcy, Capt. Hon. M. W. R., 32nd Pioneers.	
<i>A. C. R. E.</i> , Fraser, Lt.-Col. T. R. E., p.s.c.	
<i>Offr. in charge Supplies</i> , Hart, Capt. E. G., S. and T. Corps.	
<i>Asst. Dir., Medl. Services</i> , Tate, Col. A. E., Brit. Ser., V. H. S. (also A. D. M. S., Bangalore Brigade.)	

## FORT ST. GEORGE AND MADRAS.

<i>Comdg.</i> .. ..	.. Downing, Lt.-Col. G., R. Dub. Fus.	} Madras Arty. Vol.; Govr.'s Body Guard. Hd. Qrs. and Wing, 1st R. Dub. Fus. Madras Vq. Gds.; 1st M. and S. M. Ry. Rif. Det., 86th Infy. 07th, 88th, 89th, 70th Half Troops, A. T. Bullocks, 1 Troop 31st Mule Corps.
<i>Garrn. Qr.-Mr.</i> .. ..	.. Peiniger, Capt. R. F., R. G. A. ..	
<i>Garrn. Engr.</i> .. ..	.. Fenton, Capt. G. C. V., R. E. ..	
<i>Staff Surgn.</i> .. ..	.. MacLaughlin, Maj. A. M., R.A.M.C.	

CALICUT.

Comdg. .. .. .. Worthington, Capt. C. A., 2nd E. Kent R. { Det. 2nd E. Kent R. Malabar Vol. Rif.  
Det. A. T. Bullocks.

CANNANORE.

Comdg. .. .. .. Domenichetti, Lt.-Col. F. H., 88th Infantry. { Det. 2nd E. Kent R. 88th Infantry.  
S. O. (3rd cl.) .. .. . 1 Sec., 72nd Half Troop, A. T. Bullocks.

MALAPPURAM.

Comdg. .. .. .. Fort, Capt. L., 2nd E. Kent R. .. { Det., and E. Kent R.  
Det., A. T. Bullocks.

POONAMALLEE (Sanitarium).

Comdt. \* .. .. .. Somerville, Maj. S. J., R. Innis. Fus. Details.

ST. THOMAS MOUNT AND PALLAVERAM.

Comdg. .. .. .. Macbean, Lt.-Col. W. A., R.F.A., p.s.c. } XIX Bde., R.F.A., 97 Bart.  
S. O. (3rd cl.) and Cant. Patrickson, Capt. D. M., 86th Infantry. } 86th Infantry.  
Magte.

TRICHINOPOLY.

Comdg. .. .. .. London, Lt.-Col. J. A., 73rd Infantry. } 73rd Infantry.

WELLINGTON (Sanitarium).

Comdg. .. .. .. Hamilton, Brig.-Gen. W. G., D.S.O., Brit. Ser., p.s.c. } 2nd E. Kent R.  
S. O. (3rd cl.) & C. M. .. Lang, Lt. J. A. M., Notts. and Derby R. } 71st Half Troop, A. T. Bullocks.  
Garrn. Engr. .. .. .. Sykes, Lt. A. C., R. E. .. ..  
Comdt. (Sanitarium). .. Bent, Maj. A. M., R. Muns. Fus.  
S. O. (1st cl.) (Sanitarium). .. Harvey, Lt. D., 31st Punjabis. ..  
BEZWADA .. Det., 1st M. & S. M. Ry. Rif. { TANJORE .. Det., S. I. Ry. Vol.  
TRIVANDRAM .. Det., S. I. Ry. Vol. and 88th  
NEGAPATAM .. S. I. Ry. Vol. Infy.  
OOTACAMUND .. Det., 73rd and 88th Infy. { VIZAGAPATAM .. E. Coast Vol.  
WALTAE .. Det., 1st M. & S. M. Ry. Vol.

BURMA DIVISIONS—(Headquarters, *Maymyo*.)

Commander, Pilcher, Maj.-Gen. T. D., C.B. Brit. Ser. p.s.c.  
A.-D.-C., Baker, Lt. St. J. V., 11th Lancers (*Offg.*)

GENERAL STAFF.

Gen. Staff Offr., 1st gr., Walker, Col. H. B., D.S.O., Brit. Ser.  
Gen. Staff Offr., 2nd gr., Taylor, Maj. E. M., 22nd Cavalry, p.s.c.

ADMINISTRATIVE, TECHNICAL AND DEPARTMENTAL STAFF.

D. A. A.-G.—  
Clarkson, Maj. B. St. J., Dorset R.  
Pollard, Maj. A. E. St. V., Bord. R. (*Offg.*)  
A. Q. M. G.—  
Stewart, Col. J. M., C.B., A.D.C.  
Nepean, Lt.-Col. H. E. C. B., 123rd Rifles (*Offg.*)  
Asst. Dir. of Ordnance Stores, Cooper, Lt.-Col. F. T., R.A.  
Asst. Dir. of Supplies and Tpt., Hawkins, Lt.-Col. G. A., S. & T. Corps.  
Asst. Dir., Med. Services, Hale, Lt.-Col. C. H., R.A.M.C. (*Offg.*)  
Depy. Asst. Dir., Med. Services (Sany.), Bennett, Maj. W., M.B., R.A.M.C.

RANGOON BRIGADE—(Headquarters, *Rangoon*.)

Bde. Comdr., Johnstone, Brig.-Gen. A. A. J., (Col. on Staff).

Bde.-Maj., —

Nangle, Maj. M. C., 92nd Punjabis, p.s.c.  
Broadbent, Capt. J. T. C., 80th Infantry (*Offg.*)  
Offr. in charge Supplies, Brunker, Capt. J. R., S. & T. Corps.

## RANGOON.

<i>S. O. (1st cl.)</i> .. ..	.. Ellis, Capt. A. H. W., 1st G. R., p.s.c.	} Nos. 64, 75, Cos., R. G. A. Rangoon Sec. 2nd S. and M., 1st R. Muns. Fus. Rangoon Port Def. Vols., Rangoon Vol. Rif. Burma Ry. Vols., 66th Punjabis. 80th Infantry, 15th Mule Corps, 75th, 76th, 77th Half Troops, A. T. Bullocks. No. 10 Co., A. H. C., 10 Co., A.B.C.
<i>Garrn. Engr.</i> .. ..	.. Haig, Capt. D. DeH., R.E.	
<i>Cant. Magte.</i> .. ..	.. Cattell, Maj. G. L.	

## PORT BLAIR.

<i>Comdg.</i> .. ..	.. Moore, Maj. A., 66th Punjabis	} Det., 1st R. Muns. Fus. South Andamans Vol. Rif. Det., 66th Punjabis.
<i>S. O. (3rd cl.)</i> .. ..	.. Daly, Lt. C. E., 66th Punjabis	

## THAYETMYO.

<i>Comdg.</i> .. ..	.. Shaw, Capt. E. St. L., E. Surr. R.	} Det., 2nd E. Surr. R.
<i>S. O. (3rd cl.)</i> .. ..	.. Irwin, Lt. A. P. B., E. Surr. R.	

## MEIKTILA.

<i>Comdg.</i> .. ..	.. Campbell, Lt.-Col. L. W. Y., 89th Punjabis.	} Det., 2nd E. Surr. R., Upper Burma Vol., 89th Punjabis, 25th Mule Corps (1½ Troops).
<i>S. O. (3rd cl.)</i> .. ..	.. Engieduc, Capt. R. S., 89th Pun- jabis.	
<i>MERGUI</i> .. ..	.. } Dets., Moulmein Vol.	
<i>TAVOY</i> .. ..	.. } Moulmein Arty. Vol.	
<i>MOULMEIN</i> .. ..	.. } Moulmein Rif. Vol.	

## MANDALAY BRIGADE—(Headquarters, Mandalay). (Maymyo tempy.)

*Bde. Commander*, Raitt, Maj.-Gen. H. A., C.B., Brit. Ser.

*Bde.-Maj.*—

Buchanan, Maj. F. E., Royal Scots Fus.

Norris, Capt. A. K., 123rd Rifles (*Offg.*)

*Offr. in charge Supplies*, Heyland, Maj. A. K., S. & T. Corps.

## MANDALAY.

<i>Comdg.</i> .. ..	.. Williams, Lt.-Col. A. H., 91st Punjabis.	} Det., 1st Bord. R., U. Bur. Vol. Rif. No. 15 Bur. Co., 2nd S. & M. 91st Punjabis, 92nd Punjabis, 25th Mule Corps (3 Troops). 73rd, 74th Half Troops, A. T. Bullocks.
<i>S. O. (2nd cl.)</i> .. ..	.. Watts, Capt. N. H. L., 92nd Punjabis.	
<i>Cant. Magte.</i> .. ..	.. Lindsey, Capt. F. S., 129th Ba- luchis.	

## BHAMO.

<i>Comdg.</i> .. ..	.. Bousfield, Maj. E. E., 123rd Rifles.	} Det., 2nd E. Surr. R. Det., U. Bur. Vol. Rif. Det., 22nd Mn. By. 123rd Rifles, 25th Mule Corps (1 Troop).
<i>S. O. (3rd cl.)</i> .. ..	.. Sargent, Capt. W. P. M., 123rd Rifles.	

## MAYMYO.

<i>Comdg.</i> .. ..	.. Raitt, Maj.-Gen. H. A., C.B., Brit. Ser.	} 22nd Mn. By. 1st Bord. 1-10th G. R.
<i>S. O. (2nd cl.)</i> .. ..	.. Vaughan, Maj. C. D., D.S.O., Bord. R.	

## SHWEBO.

<i>Comdg.</i> .. ..	.. Lawrence, Lt.-Col. H. D., E. Surr. R., p.s.c.	} 2nd E. Surr. R. Det., Uppe Bur. Vol. Det., 25th Mule Corps.
<i>S. O. (3rd cl.)</i> .. ..	.. Mackenzie, Lt. J. D., E. Surr. R.	

CHIN HILLS, LASHIO, MAGWE, PYINMANA, TAUNGGYI, YAMETHIN, YENANGYAUNG.—Deta.,  
Vol.

ADEN BRIGADE—(Headquarters, Aden).

*Bde. Comdr.*, (Pol. Resident), Bell, Maj.-Gen. Sir J. A., K.C.V.O.  
*A.-D.-C. to Pol. Resident*, Perram, Lt. G. T. C., R. G. A.  
*Gen. Staff Offr., 2nd gr.*, Basevi, Maj. W. H. F., 90th Punjabis.  
*D. A. A. and Q. M. G.*, Sprague, Capt. L. C., R. Ir. Rif., p.s.c.  
*Asst. C. R. E.*, Collins, Lt.-Col. C. B., R.E.  
*Asst. Dir. Medl. Services*, Cleveland, Bt.-Col. H. F., I.M.S.

ADEN.

<i>Garrn. Engr.</i> .. ..	.. King, Maj. R. G., R. E. ..	} Aden Troop. Nos. 61, 70, 76, Cos., R.G.A. 1st Middx. R. No. 23 (Fortress) Coy., 3rd S. & M. Aden Section, 3rd S. & M. 109th Infantry. No. 11 Co., A. H. C. No. 11 Co., A. B. C.
<i>Cant. Magle.</i> .. ..	.. Gordon, Lt. J. dela H., 67th Punjabis.	
PERIM .. ..	.. Det. 109th Infantry.	
SHAIKH OTHMAN ..	.. Det. 109th Infantry.	

ESTABLISHMENTS.

EDUCATIONAL AND TRAINING.

Staff Colleges.

CAMBRILY.

January 1912.

Walker, Capt. C. W. G., 37th Dogras.  
 Hayes-Sadler, Capt. E. R., 8th G. R.  
 Maxwell, Capt. W. L., 127th Infantry. (Spec-  
 ially selected.)

February 1913.

Casson, Capt. W. F. S., 27th Cavalry.  
 Maunsell, Capt. E. B., 35th Horse.  
 Hunt, Capt. C. E., 34th Pioneers.  
 McCleverty, Capt. A. H., 2nd Rajputs. (Spec-  
 ially selected.)

QUETTA.

(Established, 1st July 1905.)

*Comdt. (Brig.-Gen., Genl Staff)*, Braithwaite, Brig.-Genl. W. P., C.B., Brit., Ser., p.s.c. 25th Jan. 1911.  
*Genl. Staff Offr., 1st Grade*, Franks, Bt. Lt.-Col. G. McK., R. A., p.s.c., 1st Feb. 1909 & 20th Jan. 1912.  
*Genl. Staff Offrs., 2nd Grade—*  
 Skeen, Maj. (Temp. Lt.-Col.) A., 24th Punjabis, p.s.c., 21st Jan. 1912.  
 Taylor, Maj. (Temp. Lt.-Col.) R. O'B., C.I.E., 19th Lancers, p.s.c., 23rd Jan. 1912.  
 Montgomery, Maj. (Temp. Lt.-Col.) A. A., R. A., p.s.c., 9th February 1912.  
 Sheppard, Bt. Lt.-Col. S. H., D.S.O., R. E., p.s.c., 21st Jan. 1913.  
 Isacke, Maj. (Temp. Lt.-Col.) H., R. W. Kent. R., p.s.c., 11th Feb. 1913.  
*Dep. Asst. Qr.-Mr. Gen.*, Shuttleworth, Capt. (Temp. Maj.) A. R. B. S. and T. Corps, p.s.c., 1st Apl. 1913.  
*Lecturer on Medical Services*, Macpherson, Col. W. G., C.M.G., M.B., Brit. Ser. A.D.P. (A.D.M.S., 4th (Quetta) Division).  
*Adj. and Qr.-Mr.*, Mills, Capt. A. M., 18th Lancers, 1st Apl. 1913.

CAVALRY SCHOOL, Saugor.—*Estbd. 1st Apl. 1910.*

*Comdt.*, Watson, Brig.-Gen. W. A., C.I.E., p.s.c., 1st Oct. 1912.

*Instructors—*

Conway-Gordon, Maj. E. C. W., 3rd Horse, p.s.c., 2nd July 1912.  
 Grimshaw, Capt. R. W. W., 34th Horse, 6th May 1910 and 1st Aug. 1911.  
 Reynolds, Capt. G. N., 2nd Lancers, 1st Apl. 1910.  
*Adj. and Qr.-Mr.*, Howell, Capt. C. H., 18th Lancers, 2nd Sep. 1911.  
*Vet. Offr.*, Swanton, Capt. A. N. M., A. V. C., 7th Nov. 1912.  
*Medl. Offr. (Attd.)*, John, Lt. J. C., M.B., I.M.S., 27th Aug. 1913.  
*Indian Staff Offr.*, Suraj Singh, Resaldar, 2nd Lancers, 1st Apl. 1910.

INDIAN CENTRAL FLYING SCHOOL.

(Sitapur).

*Comdt.*, Massey, Capt. S. D., 29th Punjabis.

*Instructors—*

Hoare, Capt. U. G., 39th Horse.  
 Reilly, Lt. H. L., 82nd Punjabis.  
 Newall, Lt. C. L. N., 2nd Gurkha Rifles.



## SCHOOLS OF MUSKETRY.

## Comdt.—

Humphrys, Col. C. V., Brit. Ser. (Pachmarhi), 6th Mar. 1912.  
 Barratt, Maj. E. B., 106th Pioneers (Changla Gali), 15th Jan. 1912.  
 Blore, Maj. H. R., K. R., Rif., C. p.s.c. (Satara), 19th Apl. 1913.

## Instructor—

Wall, Maj. A. C., 8th G. R., (Pachmarhi), 6th Feb. 1912.  
 Grove, Maj. P. L., Ches. R. (e) (Pachmarhi), 26th Oct. 1911.  
 Sterndale-Bennett, Capt. J., 107th Pioneers (Satara), 20th Feb. 1911.  
 Headlam, Capt. T. A., E. Yorks, R. (Changla Gali), 3rd Mar. 1911.

## SUPPLY AND TRANSPORT CORPS TRAINING ESTABLISHMENT.

(Raval Pind.)

Comdt. and Chief Instructor, Vaughan, Lt.-Col. R. E., S. &amp; T. Corps.

## Instructors—

Young, Maj. H. N., S. & T. Corps.  
 Syngge, Maj. M., S. & T. Corps.

## DEPARTMENTS OF THE ARMY.

Note.—An asterisk \* prefixed to an officer's name indicates that he has been selected for continuous service in India.]

Names and Rank.	Appointments.	* Remarks.
ORDNANCE DEPARTMENT IN INDIA.		
* Stuart, Maj.-Gen. R. C. O., Brit. Ser.	Director-General of Ordnance in India.	Simla.
* Jennings, Lieut.-Col. H. A. K., R. A.	Deputy Director-General of Ordnance in India.	Do.
* Palmer, Maj. C. C., R.A., p.a.c.	Assistant Director-General of Ordnance in India.	Do.
Villiers, Asst. Comsy. and Hy. Lt. A.	Chief Clerk	Do.
* Campbell, Lt.-Col. M.S.C., C.I.E., R.A.	Ordnance Consulting Officer for India.	India Office, London.
* Sitwell, Capt. N. S. H., R.A.	Assistant Ordnance Consulting Officer for India.	Do.

## I.—MANUFACTURING SECTION.

* Renny, Col. S. M., Brit. Ser.	Director of Ordnance Factories	Naini Tā.
Kenyon, Bt.-Lt.-Col. L. R., R.A., p.a.c.	Deputy Director of Ordnance Factories.	Do.
Harvey, E. E., Esq.	Chief Accountant	Do.
Grimstone, F. S., Esq., M.I.C.E.	Civil Engineer Adviser	Do.
Bushill, W. H., Esq.	Deputy Accountant	Do.
Weston, A. T., Esq., M.S.C., A.M.I.C.E.	Civil Engineer Assistant	Do.
Arthur, Comsy. and Hy. Capt. H. R.	Chief Clerk	Do.
Ammunition Factories, Dum Dum and Kirkee.		
* Walker, Lt.-Col. M., R.A.	Superintendent	Kirkee.
* Bertie-Clay, Lt. Col. N. S., R.A.	Do.	Dum-Dum.
* Parbury, Capt. E., R.A.	Assistant Superintendent	Kirkee.
Urquhart, Capt. A. M., R.A.	Do.	Dum-Dum.
Amor, W., Esq.	Manager	Kirkee.
Murry, T., Esq.	Do.	Dum-Dum.

## Cordite Factory, Aruvanki du, Nulgiri Hills.

* Babington, Lt.-Col. D. M., C.I.E., R.A.	Superintendent	Aruvankadu.
* Sturrock, Maj. G. C., R.A.	Assistant Superintendent	Do.
Jenkin, Capt. F. C., R.A.	Danger Building Officer	Do.
Burnham, J. C., Esq., C.S.I., B.S.C., (Vicat.) F.I.C., F.C.S.	Manager and Chemist	Do.
Hull, J. H., Esq., M.I.M.E. A.M.I.E.E.	Engineering Manager	Do.
Sheldon, N.L., Esq., P.H. D., (Heid.), F.I.C.	Chemist	Do.
Smith, L. L., Esq., M.A., (Cantab.) F.I.C.	Do.	Do.
Butler, G. S., Esq., B.A., (Oxon.) A.I.O.	Do.	Aruvankadu.

Names and Rank.	Appointment.	Remarks.
<i>Gun Carriage Factory, Jubbulpore.</i>		
* Bell, Lt.-Col. C. T., R.A. ..	.. Superintendent .. ..	.. Jubbulpore.
* Tomkins, Maj. E. L., R.A. ..	.. Assistant Superintendent .. ..	.. Do.
Penwarden, C. W. H., Esq. ..	.. Manager .. ..	.. Do.
<i>Gun and Shell Factory, Cossipore (Branch at Ishapore).</i>		
* Ogg, Lt.-Col. G. S., R.A. ..	.. Superintendent .. ..	.. Cossipore.
Tute, Lt. C. S., R.A. ..	.. Assistant Superintendent .. ..	.. Do.
Cruickshank, Capt. H. St. J., R.A., p.a.c. ..	.. Do. .. ..	.. Ishapore.
Kidd, H. C., Esq., M.I.C.E. ..	.. Manager .. ..	.. Cossipore.
Williams, F. G., Esq. ..	.. Steel Works Manager .. ..	.. Ishapore.
<i>Harness and Saddlery Factory, Cawnpore.</i>		
* Lane, Maj. F. C., R.A. ..	.. Superintendent .. ..	.. Cawnpore.
Murray, Capt. F. M., R.A. ..	.. Assistant Superintendent .. ..	.. Do.
Woods, O., Esq. ..	.. Manager .. ..	.. Do.
<i>Rifle Factory, Ishapore.</i>		
* Foote, Lt.-Col. H. B., R.A. ..	.. Superintendent .. ..	.. Ishapore.
Lenfesty, Capt. L. d'E., R.A. ..	.. Assistant Superintendent .. ..	.. Do.
Smith, W. G., Esq. ..	.. Manager .. ..	.. Lv., ex I., 12 ms 13 May 13.
<i>Assistant Superintendents—(4).</i>		
Carey, Capt. F., R.A. ....	.....	Ishapore Branch— G. & S. Factory.
Long, Lt. W. E. L., R.A. ....	.....	Jubbulpore—G. C Factory.

II.—STORES SECTION.

Watkins, Col. L. G., Brit. Ser. ..	.. Director of Ordnance Stores ..	.. Simla.
* Woods, Maj. G. G., R.A. ..	.. Deputy Director of Ordnance Stores. ..	.. Do.
* Gardiner, Capt. H. W., R.A. ..	.. Deputy Assistant Director of Ord- nance Stores. ..	.. Do.
Smith, Coms. and Hy. Maj. B. E. ..	.. Chief Clerk .. ..	.. Do.

*Assistant Directors of Ordnance Stores—(7).*

Names and Rank.	Remarks.
* Smallwood, Maj. F. G., C.V.O. ..	.. Rawal Pindi.—1st and 2nd Divisions.
* Radcliffe, Lt.-Col. W. C. A., R.A. ..	.. Allahabad.—8th Division.
* Lathbridge, Maj. S., R.A. ..	.. Kirkee.—5th and 6th Divisions.
* Cooper, Lt.-Col. P. T., R.A. ..	.. Rangoon.—Burma Division.
* Carter, Maj. E., R.A. ..	.. Quetta.
* Bowen, Maj. H. W., R.A. ..	.. Ferozepore.—(s.p.t.) 3rd and 7th Divisions.
* Garstin, Maj. H. E., R.A. ..	.. Madras.—8th Divisions (s.p.t.).

III.—INSPECTION SECTION.

Names and Rank.	Appointments.	Remarks.
Minchis, Col. F. F., Brit. Ser. p.a.c. ..	.. Director of Ordnance Inspection ..	.. Lv., ex I., 8 ms., 2 ds., 14 Aug. 13.
Lawrence-Archer, Maj. J. H., R.A. ..	.. Assistant Director of Ordnance Inspection. ..	.. Naini Tal.
Marshall, A., Esq., F.I.C., F.C.S. ..	.. Chemical Inspector .. ..	.. Do.

## ARMY REMOUNT DEPARTMENT IN INDIA.

Director General.

Names and Rank.	Remarks.
Broome, Maj.-Gen. R. C., C.I.E. .. ..	Simla.

## SUPERINTENDENTS—(17).

Templer, Maj. C. F. .. ..	Remt. Depot, Hapur.
Humfrey, Lt.-Col. B. J. H. .. ..	Remt. Depot, Rawal Pindi Circle.
Peacocke, Lt.-Col. T. G. .. ..	Remt. Depot, Saharanpur.
Bruce, Capt. J. .. ..	.....
Vanrenen, Capt. D. H. .. ..	Remt. Depot, Mona.
Loch, Maj. E. C. .. ..	Remt. Depot, Hosur.
Mayne, Capt. C. E. M. .. ..	Chenab Canal Colony Circle.
Hewitt, Capt. D. R. .. ..	Mule purchasing duty China.
Beatty, Capt. R. G. .. ..	Remt. Depot, Baluchistan Circle.
Scott, Capt. R. S. .. ..	Remt. Depot, Babugarh.
Hagger, Capt. E. R. .. ..	Remt. Depot, Sargodha.
Gordon, Capt. H. F. .. ..	.....
Knaggs, Capt. C. F. .. ..	.....
Passy, Capt. F. H. B. .. ..	Remt. Depot, Lahore Circle.
Rennick, Capt. A. deC., 11th Lancers .. ..	.....
Anderson, Capt. W. H., 33rd Cavalry .. ..	Lahore Circle.

## Assistant Superintendents—(2).

Hunt, Capt. F. E., D.S.O., 29th Lancers .. ..	Mule purchasing duty, China.
Hume, Capt. E. G., 7th Lancers .. ..	Jhelum Canal Colony Circle.

## Veterinary Officers.—(10).

Shore, Maj. W. F., A.V.C. .. ..	P. A. and Staff V. O. to D. G., A. R. D., Simla.
Hunt, Maj. F. D., A.V.C. .. ..	Remt. Depot, Ahmednagar.
Gillet, Capt. E. S., A.V.C. .. ..	Remt. Depot, Saharanpur.
Roberts, Capt. N. d'E., A.V.C. .. ..	.....
Russell, Capt. E. C., F.R.C.V.S., A.V.C. .. ..	.....
Allen, Capt. H., A.V.C. .. ..	Rawal Pindi and Chenab Canal Colony Circle.
Lowe, Capt. W. C., F.R.C.V.S., A.V.C. .. ..	Remt. Depot, Hosur.
Harrison, Capt. J., A.V.C. .. ..	Remt. Depot, Sargodha.
O'Kelly, Capt. J. W., A.V.C. .. ..	Remt. Depot, Mona.
Malone, Lt. P. J., A.V.C. .. ..	Jhelum Canal Colony Circle.
Native Officers.—(6).	
Gunpat Rao Umre, Risaldar .. ..	Rawal Pindi Circle.
Sultan Jan Risaldar, Guides .. ..	Lahore Circle.
Muhammad Ali Khan, Risaldar, 35th Scinde Horse. .. ..	Baluchistan Circle.
Ewaz Khan, Risaldar .. ..	United Provs. Circle.
Murad Ali Khan, Jemdr., Guides .. ..	Chenab Canal Colony Circle, Lyallpur.

## MEDICAL STORES DEPARTMENT.

## Medical Store-keepers to Government—(5).

Swinton, Lt.-Col. F. E., I.M.S. .. ..	Bombay.
Richards, Maj. W. G., M.B., I.M.S. .. ..	.....
Hayward, Maj. W. D., M.B., I.M.S. .. ..	Offg. Madras.
Gibbs, Maj. A. A., I.M.S. .. ..	.....
Mathew, Maj. C. M., I.M.S. .. ..	Offg. Calcutta.
Marr, Maj. C. F., M.B., I.M.S. .. ..	Offg. Lahore.
Kolapur, Capt. F. J., I.M.S. .. ..	Medl. Store Depot, Rangoon.

## ARMY CLOTHING DEPARTMENT.

## Director and Superintendent.

O'Meara, Maj. C. A. E. .. ..	Alipore.
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## Superintendent—(1).

Macdonald, Maj. H. .. ..	Madras.
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## Assistant Superintendents—(3).

Howden, Maj. W. H. .. ..	.....
Ilott, Capt. M., 41st Dogras .. ..	Alipore.
Centries, Lt. E. F. V., R.A. .. ..	Madras.

RECRUITING OFFICERS.

Name, Rank and Corps.	Remarks.
Harrison, Maj. A. H. P., 33rd Punjabis	.. Rectg. Staff Officer, A. H. Q.
Bourne, Maj. W. Fitz G., 10 Jats	.. For Jats and Hindustani Muslims, Delhi.
Nightingale, Maj. M.R.W., 5th G.R.	.. For Gurkhas, Gorakhpur.
Carey, Maj. C. W., Guides	.. For Pathans, Peshawar.
Wikeley, Lt.-Col. J.M., 17th Cavalry	.. For Punjabi Musalmans, Rawal Pindi.
Hobson, Maj. A. C., 90th Infantry	.. For Hindustani Hindus, Lucknow.
Hunter, Maj. W. J. H., 117th Mahrattas	.. For Mahrattas and Dekhani Mussalmans.—Lv., ex. 1. 8 mos., 15 Mar. 13.
Faunce, Maj. A. De'L., 9th Infantry	.. For Dogras and Sikhs, Jullunder.
Plumer, Capt. C. G. M., 61 Pioneers	.. For Madrassi Musalmans, Hindus and Christians, Bangalore.
Seaton, Capt. F. D. R., 112th Infantry	.. For Rajputana and C. I. Musalmans and Hindus, Ajmer.
Johnstone, Capt. F. A. B., 101st Grenadiers	.. For Mahrattas and Dekhani Mussalmans, Poona (Offg.).

MILITARY FARMS DEPARTMENT DIRECTOR.

Hallowes, Lt.-Col. F. W. (S. and T. Corps). Simla.

*Assistant Directors, Grass Farms, and Attached Officers.*

*Appointed under I. A. C., clause 82 of 1900, and I. O. A., 473 of 1905.*

Finch, Lt.-Col. C.	.. Lucknow.
Hawkes, Maj. G. A.	.. Poona.
Obbard, Lt.-Col. E. N.	.. Meerut.
Matson, Capt. F.	.. (Formerly graded in S. and T. Corps, or appointed subsequent to 1st February 1912.)
Mellor, Capt. G. F.	.. Mhow.
Elliott, Maj. H.H.	.. Lahore.
Marriott, Capt. A. S.	.. Rawal Pindi.
Kirkwood, Capt. A. S.	.. Bangalore.
Capt. G.	.. Secunderabad.
Home, Capt. D. C.	.. Mhow.
Wheeler, Capt. E. S., 37th Dogras	.. Lahore.
Budden, Capt. J. A.	.. Rawalpindi.
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(UNDER THE FINANCE DEPARTMENT OF THE GOVERNMENT OF INDIA.)

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Holden, Maj. H.N., 5th Cavalry . . . . .	.. .. .	Raj. Cavy. and Tpt. Lv. ex I., to 7 Nov. 13.
Pennington, Maj. A. W., M.V.O., 9th Horse.. . . .	.. .. .	C. I. Cavy. and Tpt. Lv., ex I., to 19 Oct. 13.
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Skinner, Capt. A.B., 5th Cavalry . . . . .	Adjutant.

## TROOPS SERVING OUT OF INDIA UNDER THE IMPERIAL GOVERNMENT.

EGYPT . . . . .	No. 3, Mountain Battery.
KOWLOON, HONGKONG . . . . .	24th Mtn. Battery. COLOMBO, KANDY & DIYATWALA. 4th Rajputa.
	8th Rajputa.
	25th Punjabis.
	26th Punjabis.
TIENTSIN, CHINWANGTAO . . . . .	126th Infantry.
	124th Infantry.

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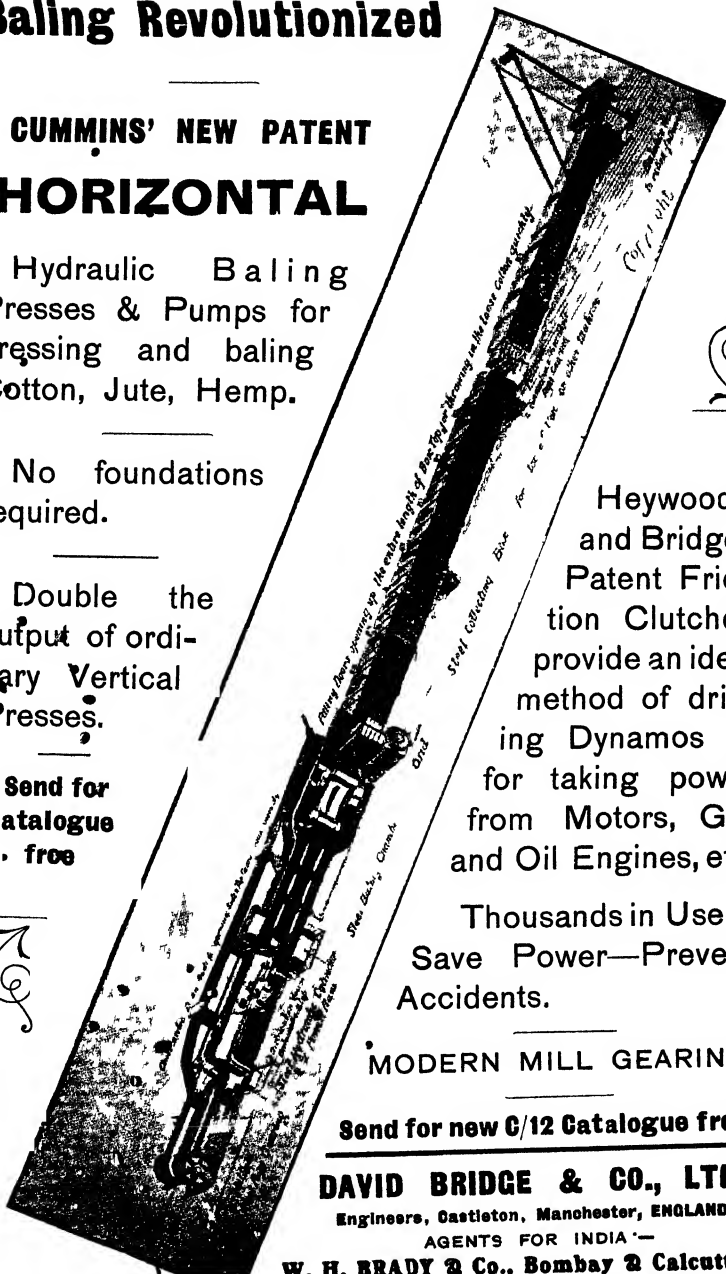
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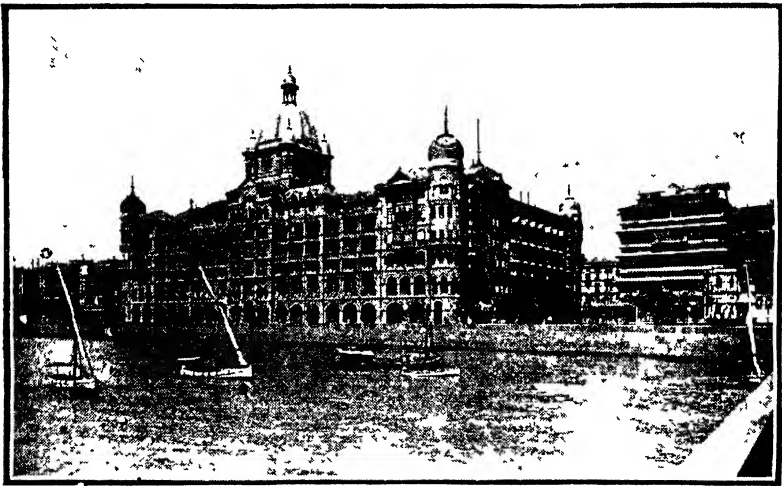
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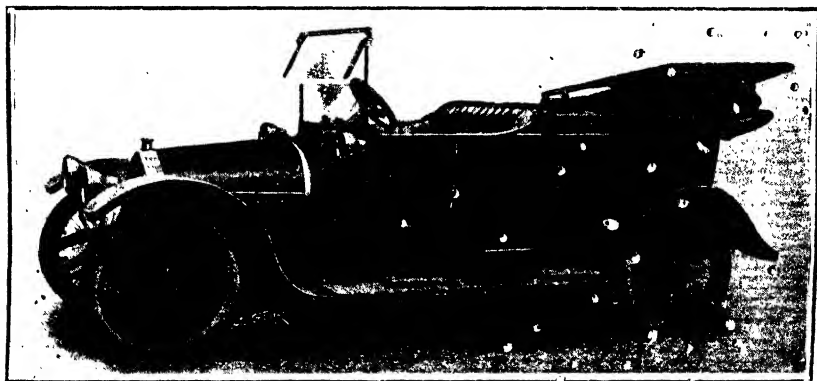
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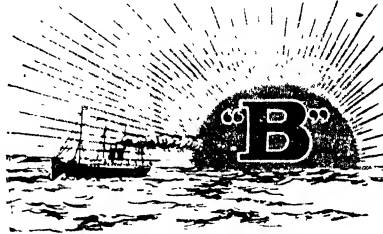
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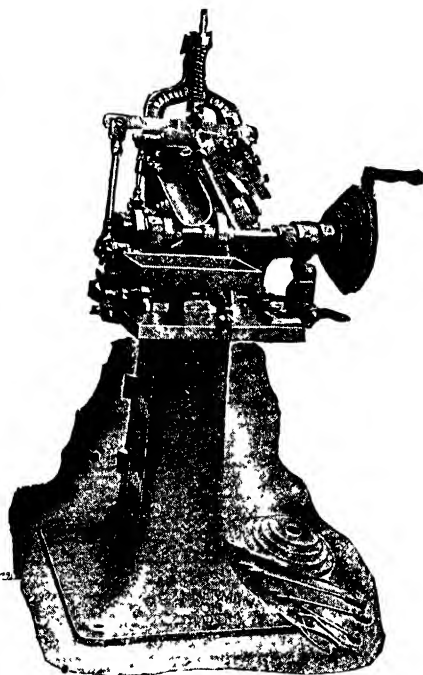
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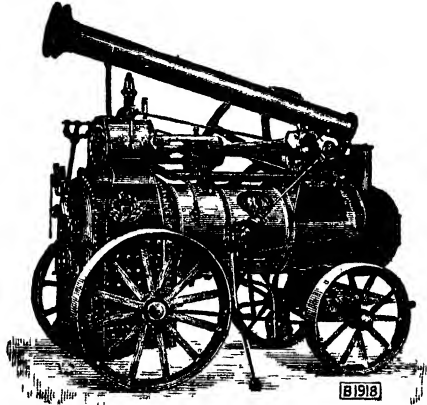
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